### Разъемы для коаксиального кабеля 7/8"

- Кабельная группа LCF78-50
- Производство RFS (Radio Frequency Systems)

### Технический паспорт изделия

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Примечание. Для перехода на нужную вам страницу кликните по ссылке

158EIA-LCF78-062



# 1-5/8" EIA Connector for 7/8" Coaxial Cable, RAPID FIT™ Sealing compound

Radio Frequency Systems' line of high performance coaxial cable connectors are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up the attachment of connectors to CELLFLEX® coaxial cables. RFS connectors are fully tested for mechanical and electrical compliance specifications. They are available in all popular cable sizes in a variety of mating interfaces. To join two cables with EIA connectors, two identical socket connectors are installed on either end of the cables to be joined, and a coupling element is used to make the connection of the center conductor. The coupling element must be ordered separately with the exception of the S-Line male versions that have a captivated coupling element. Connectors are available in sizes matching the nominal cable size. EIA connectors provide optimal power handling for the complete transmission line system.



#### RAPID FIT™ Connectors

#### FEATURES / BENEFITS

- Single-piece design for Fast and Easy Installation
  Reliable and simple attachment avoids unnecessary connector adjustments and provides outstanding
  performance every time. Saves time and provides cost savings.
- Robust Mechanical Design
   Low and consistent intermodulation performance guarantees outstanding system sensitivity.
- Excellent Electrical Performance
   Consistent and repeatable low VSWR improves overall system performance and margin and reduces mismatch losses
- Totally Waterproof according to IP68
   Assures safe, long term operation in the harshest of environments.

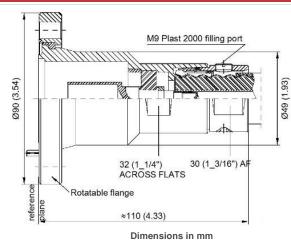
#### **Technical Features**

GENERAL SPECIFICATIONS				
Transmission Line Type		Coaxial Cable		
Cable Size		7/8"		
Cable Type		Foam Dielectric		
Model Series		LCF78-50A-Series, RCF78-50A-Series		
Connector Interface		1-5/8" EIA		
Connector Type		RAPID FIT™		
Sealing Method		Sealing compound 1)		
Gender		None		
ELECTRICAL SPECIFICATIONS				
3rd Order IM Product @ 2x20 Watts	dBc	<-156		
Maximum Frequency	GHz	3.3		
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.0) 1.0 < f S 2.7 GHz: 1.03 (36.6) 2.7 < f S 3.7 GHz: 1.06 (30.7)		
MECHANICAL SPECIFICATIONS				
Plating Outer/Inner		Silver/Silver		
Length	mm (in)	110 (4.3)		
Outer Diameter	mm (in)	90 (3.5)		
Weight	kg (lb)	0.95 (2.1)		
Inner Contact Attachment		Spring Finger		
Outer Contact Attachment		Spring Finger		
ACCESSORIES				
Wrench size front	mm (in)	30 (1-3/16)		
Wrench size rear	mm (in)	30 (1-3/16)		
Trimming Tool		TRIM-Series-A		
TESTING AND ENVIRONMENTAL				
Waterproof Level		IP68		
Sealing Volume	cm³ (ounces)	7 (0.26)		

158EIA-LCF78-062 REV: E REV DATE: 13.May.2016 www.rfsworld.com



# 1-5/8" EIA Connector for 7/8" Coaxial Cable, RAPID FIT™ Sealing compound



#### **External Document Links**

#### Notes

Installation Instruction

1) The sealing compound must be ordered separately.

158EIA-LCF78-062 REV: E REV DATE: 13.May.2016 www.rfsworld.com

43F-LCF78-C03



# 4.3-10 Female Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminum) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. The 4.3-10 connector is an innovative, space-saving RF connection meeting all requirements even under the most severe environmental conditions and not relying on coupling nut torque to meet PIM performance.

#### **FEATURES / BENEFITS**

- Cost effective two-piece design for safe and easy installation
- Compatible with copper and aluminium cable types i.e. one connector for both outer conductor materials eliminates the risk of faulty connector installation and helps to keep inventory down
- Robust mechanical design for low and consistent intermodulation performance i.e. keeps the mobile network performance up reduces the number of dropped calls and avoids revenue losses
- Superior electrical performance for consistent and repeatable VSWR i.e. ensure network system performance
- Waterproof to IP 68 i.e. no downtime risk, secures revenue
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis



43F-LCF78-C03

#### **Technical Features**

GENERA	I SDE	CIEIC	ATIONS	
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Transmission Line Type	Coaxial Cable
Cable Size	7/8"
Cable Type	Foam Dielectric
Model Series	LCF78-50 Series RCF78-50 Series
Connector Interface	4.3-10
Connector Type	OMNI FIT™ Standard
Sealing Method	O-ring
Gender	Female

#### **ELECTRICAL SPECIFICATIONS**

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-162; typical -166
Maximum Frequency	GHz	6.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.03 (36.6) 1.0 < f S 2.7 GHz: 1.04 (34.1) 2.7 < f S 3.7 GHz: 1.08 (28.3) 3.7 < f S 5.0 GHz: 1.10 (26.4) 5.0 < f S 6.0 GHz: 1.25 (19.1)

#### **MECHANICAL SPECIFICATIONS**

Plating Outer/Inner		Trimetal/Silver
Length	mm (in)	54.5 (2.15)
Outer Diameter	mm (in)	35.5 (1.4)
Weight	kg (lb)	0.131 (0.29)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		Spring C-Ring
ACCESSORIES		

#### **ACCESSORIES**

Wrench size front	mm (in)	22 (0.87)
Wrench size rear	mm (in)	32 (1.26)
Trimming Tool		TRIM-SET-L78-C02
TECTING AND ENVIRONMENTAL		

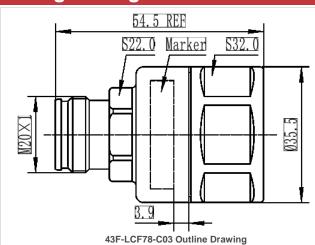
#### **TESTING AND ENVIRONMENTAL**

Waterproof Level	IP68
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43F-LCF78-C03 REV: B REV DATE: 07.Oct.2018 www.rfsworld.com



# 4.3-10 Female Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing



Externa	I Document I	Links
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**Notes** 

Installation Instruction

43F-LCF78-C03 REV: B REV DATE: 07.Oct.2018 www.rfsworld.com

43F-LCF78-D01



### 4.3-10 Female Straight Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Polymer claw and compression sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminium) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications.

The 4.3-10 connector is an innovative, space-saving RF connection meeting all requirements even under the most severe environmental conditions and not relying on coupling nut torque. Sealing against outer conductor and jacket by means of the polymer claw and 360° compression fit. Multifunctional, self-lubricating HighTech polymer assembly locks on cable corrugation, avoids electrochemical potential differences and compression-fits to the jacket.



OMNI FIT™ Premium Connectors

#### FEATURES / BENEFITS

- Ultra high PIM performance i.e. reduced interference leading to high customer satisfaction
- Two-piece design i.e. visual inspection of interlocking leads to improved installation security
- OMNI FIT™ concept i.e. streamlined order management and reduced stock level
- Watertight sealing in mated and unmated condition, i.e. reduced efforts during installation and improved security during operation
- Unique NiTin plating i.e. extreme resistance against corrosion even under hardest climatic and environmental circumstances
- Multi-thread (Tristart) design i.e. simplified and accelerated tightening process
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

#### **Technical Features**

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CENTER OF EACH POSITION		
Transmission Line Type	Coaxial Cable	
Cable Size	7/8"	
Cable Type	Foam Dielectric	
Model Series	LCF78-50 Series, RCF78-50 Series	
Connector Interface	4.3-10	
Connector Type	OMNI FIT™ PREMIUM Straight	
Sealing Method	Polymer claw + 360° Compression	
Gender	Female	

#### **ELECTRICAL SPECIFICATIONS**

.. . ..

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-163 ; typical -167
Maximum Frequency	GHz	5.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.1) 1.0 < f S 2.7 GHz: 1.03 (36.6) 2.7 < f S 3.7 GHz: 1.06 (30.7) 3.7 < f S 5.0 GHz: 1.09 (27.3)

#### MECHANICAL SPECIFICATIONS

Plating Outer/Inner		NiTin/Silver
Length	mm (in)	68.2 (2.69)
Outer Diameter	mm (in)	40 (1.57)
Weight	kg (lb)	0.17 (0.37)
Inner Contact Attachment		Basket
Outer Contact Attachment		360° clamping

#### ACCESSORIES

Wrench size front	mm (in)	36 (1-7/16)
Wrench size rear	mm (in)	36 (1-7/16)
Trimming Tool		TRIM-SET-L78-D01, TRIM-LCF78-D01-A
TESTING AND ENVIRONMENTAL		

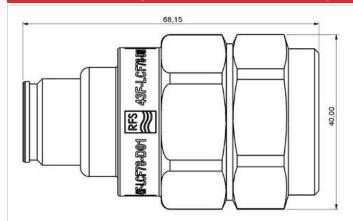
#### TESTING AND ENVIRONMENTA

Waterproof Level

43F-LCF78-D01 REV: C REV DATE: 22.Sep.2017 www.rfsworld.com



# 4.3-10 Female Straight Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Polymer claw and compression sealing



43F-LCF78-D01 Outline Drawing

**External Document Links** 

**Notes** 

Installation Instruction

43F-LCF78-D01 REV: C REV DATE: 22.Sep.2017 www.rfsworld.com

43F-LCF78-E01



### 4.3-10 Female Straight Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, O-Ring and compression sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminium) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications.

The 7-16 connector is the most rugged RF connection meeting all requirements even under the most severe environmental conditions. Sealing against outer conductor and jacket by means of the o-ring and 360° compression fit.



#### **FEATURES / BENEFITS**

- (A) Ultra high PIM performance i.e. reduced interference leading to high customer satisfaction
- Two-piece design i.e. visual inspection of interlocking leads to improved installation security
- OMNI FIT™ concept i.e. streamlined order management and reduced stock level
- Watertight sealing in mated and unmated condition, i.e. reduced efforts during installation and improved security during operation
- Tri metal alloy plating i.e. extreme resistance against corrosion even under hardest climatic and environmental circumstances
- Multi-thread (Tristart) design i.e. simplified and accelerated tightening process
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

#### **Technical Features**

#### **GENERAL SPECIFICATIONS**

Transmission Line Type	Coaxial Cable	
Cable Size	7/8"	
Cable Type	Foam Dielectric	
Model Series	LCF78-50 Series, RCF78-50 Series	
Connector Interface	4.3-10	
Connector Type	OMNI FIT™ PREMIUM Straight	
Sealing Method	Sealing Rubber+ 360° clamping	
Gender	Female	
ELECTRICAL SPECIFICATIONS		

Ohm

50

-		
3rd Order IM Product @ 2x20 Watts	dBc	-163; typical -167
Maximum Frequency	GHz	6.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.0) 1.0 < f S 2.2 GHz: 1.03 (37.0) 2.2 < f S 2.7 GHz: 1.03 (36.0) 2.7 < f S 3.8 GHz: 1.06 (31.0) 3.8 < f S 5.0 GHz: 1.11 (26.0) 5.0 < f S 6.0 GHz: 1.15 (23.0)

### MECHANICAL SPECIFICATIONS

Nominal Impedance

	NiTin/Silver
mm (in)	75 (2.95)
mm (in)	37 (1.46)
kg (lb)	0.2 (0.44)
	Basket
	360° clamping
	mm (in)

#### **ACCESSORIES**

Wrench size front	mm (in)	34 (1,34)
Wrench size rear	mm (in)	34 (1,34)
Trimming Tool		TRIM-SET-L78-D01, TRIM-LCF78-D01-A
TESTING AND ENVIRONMENTAL		

### Waterproof Level

vater proof Level	11-00

<b>External Document Links</b>	Notes
Installation Instruction	

43F-LCF78-E01 REV: A REV DATE: 15.Jun.2020 www.rfsworld.com



### 4.3-10 Male Hand-Screw Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminum) cables. They are designed specifically to provide the highest quality connector -cable interface while simplifying and speeding up connector attachment. The 4.3-10 connector is an innovative, space-saving RF connection meeting all requirements even under the most severe environmental conditions and not relying on coupling nut torque to meet PIM performance.

Hand-Screw attachment mechanism that is ideal for indoor and outdoor spaces where installation must be completed using only one hand.



#### 43MH-LCF78-C03

#### **FEATURES / BENEFITS**

- Ost effective two-piece design for safe and easy installation
- Compatible with copper and aluminium cable types i.e. one connector for both outer conductor materials eliminates the risk of faulty connector installation and helps to keep inventory down
- Robust mechanical design for low and consistent intermodulation performance i.e. keeps the mobile network performance up reduces the number of dropped calls and avoids revenue losses
- Superior electrical performance for consistent and repeatable VSWR i.e. ensure network system performance
- Waterproof to IP 68 i.e. no downtime risk, secures revenue
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis
- Hand-Screw Type connector could be torqued by hand, possesses special feature to prevent unwanted loosening of the coupling nut which could fit for both indoor and outdoor application where small installation space is required to accommodate one of the hands

#### **Technical Features**

#### **GENERAL SPECIFICATIONS**

Transmission Line Type	Coaxial Cable		
Cable Size	7/8"		
Cable Type	Foam Dielectric		
Model Series	LCF78-50 Series RCF78-50 Series		
Connector Interface	4.3-10 Hand-Screw		
Connector Type	OMNI FIT™ Standard		
Sealing Method	O-ring		
Gender	Male		

#### **ELECTRICAL SPECIFICATIONS**

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-162 ; typical -166
Maximum Frequency	GHz	6.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.03 (36.6) 1.0 < f S 2.7 GHz: 1.04 (34.1) 2.7 < f S 3.7 GHz: 1.08 (28.3) 3.7 < f S 5.0 GHz: 1.10 (26.4) 5.0 < f S 6.0 GHz: 1.25 (19.1)

#### **MECHANICAL SPECIFICATIONS**

Plating Outer/Inner		Trimetal/Silver
Length	mm (in)	57.5 (2.26)
Outer Diameter	mm (in)	35.5 (1.4)
Weight	kg (lb)	0.149 (0.33)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		Spring C-Ring

#### **ACCESSORIES**

Wrench size front	mm (in)	22 (0.87)
Wrench size rear	mm (in)	32 (1.26)
Trimming Tool		TRIM-SET-L78-C02
TECTING AND ENVIRONMENTAL		

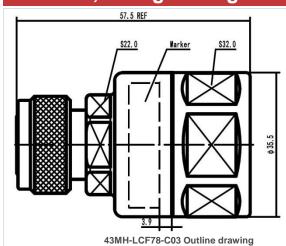
#### **TESTING AND ENVIRONMENTAL**

Waterproof Level	IP68	

43MH-LCF78-C03 REV: B REV DATE: 07.Oct.2018 www.rfsworld.com



# 4.3-10 Male Hand-Screw Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing



**External Document Links** 

**Notes** 

Installation Instruction

43MH-LCF78-C03 REV: B REV DATE: 07.Oct.2018 www.rfsworld.com

43M-LCF78-C03



### 4.3-10 Male Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, Oring sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminum) cables. They are designed specifically to provide the highest quality connector cable interface while simplifying and speeding up connector attachment. The 4.3-10 connector is an innovative, space-saving RF connection meeting all requirements even under the most severe environmental conditions and not relying on coupling nut torque to meet PIM performance.

#### **FEATURES / BENEFITS**

- Cost effective two-piece design for safe and easy installation
- ℈ Compatible with copper and aluminium cable types i.e. one connector for both outer conductor materials eliminates the risk of faulty connector installation and helps to keep inventory down
- Robust mechanical design for low and consistent intermodulation performance i.e. keeps the mobile network performance up reduces the number of dropped calls and avoids revenue losses
- ⊕ Superior electrical performance for consistent and repeatable VSWR i.e. ensure network system performance
- ℈ Waterproof to IP 68 i.e. no downtime risk, secures revenue
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

43M-LCF78-C03

#### **Technical Features**

GENERAL SPECIFICATIONS		
Transmission Line Type	Coaxial Cable	
Cable Size	7/8"	
Cable Type	Foam Dielectric	
Model Series	LCF78-50 Series RCF78-50 Series	
Connector Interface	4.3-10	
	CARLIE ETTILO	

**Connector Type** OMNI FIT™ Standard

**Sealing Method** O-ring Gender Male

#### **ELECTRICAL SPECIFICATIONS**

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Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-162 ; typical -166
Maximum Frequency	GHz	6.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.03 (36.6) 1.0 < f S 2.7 GHz: 1.04 (34.1) 2.7 < f S 3.7 GHz: 1.08 (28.3) 3.7 < f S 5.0 GHz: 1.10 (26.4) 5.0 < f S 6.0 GHz: 1.25 (19.1)

#### **MECHANICAL SPECIFICATIONS**

Plating Outer/Inner		Trimetal/Silver
Length	mm (in)	57.5 (2.26)
Outer Diameter	mm (in)	35.5 (1.4)
Weight	kg (lb)	0.146 (0.32)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		Spring C-Ring

#### **ACCESSORIES**

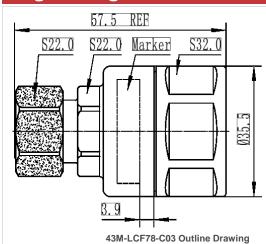
Wrench size front	mm (in)	22 (0.87)
Wrench size rear	mm (in)	32 (1.26)
Trimming Tool		TRIM-SET-L78-C02
TECTING AND ENVIRONMENTAL		

Waterproof Level	IP68	
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43M-LCF78-C03 REV: B REV DATE: 07.Oct.2018 www.rfsworld.com



# 4.3-10 Male Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing



**External Document Links** 

**Notes** 

Installation Instruction

43M-LCF78-C03 REV: B REV DATE: 07.Oct.2018 www.rfsworld.com

43M-LCF78-D01



### 4.3-10 Male Straight Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Polymer claw and compression sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminium) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications.

The 4.3-10 connector is an innovative, space-saving RF connection meeting all requirements even under the most severe environmental conditions and not relying on coupling nut torque. Sealing against outer conductor and jacket by means of the polymer claw and 360° compression fit. Multifunctional, self-lubricating HighTech polymer assembly locks on cable corrugation, avoids electrochemical potential differences and compression-fits to the jacket.



#### 43M-LCF78-D01

#### FEATURES / BENEFITS

- Ultra high PIM performance i.e. reduced interference leading to high customer satisfaction
- Two-piece design i.e. visual inspection of interlocking leads to improved installation security
- OMNI FIT™ concept i.e. streamlined order management and reduced stock level
- Watertight sealing in mated and unmated condition, i.e. reduced efforts during installation and improved security during operation
- Unique NiTin plating i.e. extreme resistance against corrosion even under hardest climatic and environmental circumstances
- Multi-thread (Tristart) design i.e. simplified and accelerated tightening process
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

#### **Technical Features**

GENERAL	SPECIFI	CATIONS
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CENTER OF EGIL FORMORE		
Transmission Line Type	Coaxial Cable	
Cable Size	7/8"	
Cable Type	Foam Dielectric	
Model Series	LCF78-50 Series, RCF78-50 Series	
Connector Interface	4.3-10	
Connector Type	OMNI FIT™ PREMIUM Straight	
Sealing Method	Polymer claw + 360° Compression	
Gender	Male	

#### **ELECTRICAL SPECIFICATIONS**

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Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-163 ; typical -167
Maximum Frequency	GHz	5.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.1) 1.0 < f S 2.7 GHz: 1.03 (36.6) 2.7 < f S 3.7 GHz: 1.06 (30.7) 3.7 < f S 5.0 GHz: 1.09 (27.3)

#### **MECHANICAL SPECIFICATIONS**

Plating Outer/Inner		NiTin/Silver
Length	mm (in)	70.35 (2.77)
Outer Diameter	mm (in)	40 (1.57)
Weight	kg (lb)	0.182 (0.4)
Inner Contact Attachment		Basket
Outer Contact Attachment		360° clamping
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#### ACCESSORIES

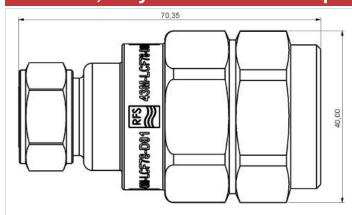
Wrench size front	mm (in)	36 (1-7/16)
Wrench size rear	mm (in)	36 (1-7/16)
Trimming Tool		TRIM-SET-L78-D01, TRIM-LCF78-D01-A
TESTING AND ENVIDONMENTAL		

#### TESTING AND ENVIRONMENTAL

43M-LCF78-D01 REV: C REV DATE: 22.Sep.2017 www.rfsworld.com



# 4.3-10 Male Straight Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Polymer claw and compression sealing



43M-LCF78-D01 Outline Drawing

**External Document Links** 

**Notes** 

Installation Instruction

43M-LCF78-D01 REV: C REV DATE: 22.Sep.2017 www.rfsworld.com

43M-LCF78-E01



### 4.3-10 Male Straight Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, O-Ring and compression sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminium) cables. They are designed specifically to provide the highest quality connectorcable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications.

The 7-16 connector is the most rugged RF connection meeting all requirements even under the most severe environmental conditions. Sealing against outer conductor and jacket by means of O-Ring and 360° compression fit.



#### **FEATURES / BENEFITS**

- Ultra high PIM performance i.e. reduced interference leading to high customer satisfaction
- Two-piece design i.e. visual inspection of interlocking leads to improved installation security ℈
- $\Theta$ OMNI FIT™ concept i.e. streamlined order management and reduced stock level
- Watertight sealing in mated and unmated condition, i.e. reduced efforts during installation and improved security ℈ during operation
- ℈ Tri metal alloy plating i.e. extreme resistance against corrosion even under hardest climatic and environmental
- Multi-thread (Tristart) design i.e. simplified and accelerated tightening process
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

#### **Technical Features**

#### **GENERAL SPECIFICATIONS**

Transmission Line Type	Coaxial Cable	
Cable Size	7/8"	
Cable Type	Foam Dielectric	
Model Series	LCF78-50 Series, RCF78-50 Series	
Connector Interface	4.3-10	
Connector Type	OMNI FIT™ PREMIUM Straight	
Sealing Method	Sealing rubber + 360° clamping	
Gender	Male	
ELECTRICAL SPECIFICATIONS		

Ohm

50

•		
3rd Order IM Product @ 2x20 Watts	dBc	-163; typical -167
Maximum Frequency	GHz	6.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.0) 1.0 < f S 2.2 GHz: 1.03 (37.0) 2.2 < f S 2.7 GHz: 1.03 (36.0) 2.7 < f S 3.8 GHz: 1.06 (31.0) 3.8 < f S 5.0 GHz: 1.11 (26.0) 5.0 < f S 6.0 GHz: 1.15 (23.0)

### **MECHANICAL SPECIFICATIONS**

Nominal Impedance

	NiTin/Silver
nm (in)	74 (2.91)
nm (in)	37 (1.46)
kg (lb)	0.206 (0.45)
	Spring finger
	360° clamping
r	nm (in)

#### ACCESSORIES

7.002001.1120		
Wrench size front	mm (in)	34 (1,34)
Wrench size rear	mm (in)	34 (1,34)
Trimming Tool		TRIM-SET-L78-D01, TRIM-LCF78-D01-A
TESTING AND ENVIRONMENTAL		

External Document Links	Notes
Installation Instruction	

43M-LCF78-E01 REV: A **REV DATE: 15.Jun.2020** www.rfsworld.com



# 4.3-10 Male Push-Pull Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminum) cables. They are designed specifically to provide the highest quality connector -cable interface while simplifying and speeding up connector attachment. The 4.3-10 connector is an innovative, space-saving RF connection meeting all requirements even under the most severe environmental conditions and not relying on coupling nut torque to meet PIM performance.

Push-Pull lock and unlock attachment mechanism that is ideal for the smallest installation spaces.

#### 43MP-LCF78-C03

#### **FEATURES / BENEFITS**

- Ost effective two-piece design for safe and easy installation
- Compatible with copper and aluminium cable types i.e. one connector for both outer conductor materials eliminates the risk of faulty connector installation and helps to keep inventory down
- Robust mechanical design for low and consistent intermodulation performance i.e. keeps the mobile network performance up reduces the number of dropped calls and avoids revenue losses
- Superior electrical performance for consistent and repeatable VSWR i.e. ensure network system performance
- Waterproof to IP 68 i.e. no downtime risk, secures revenue
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis
- Push-Pull Type connector possesses special mechanical design to support quickest lock & unlock feature within the most confined smallest installation space where only accommodates one of the hands

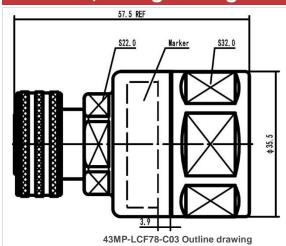
### **Technical Features**

OFNED AL OPPOSIÇÃO ATIONO				
GENERAL SPECIFICATIONS				
Transmission Line Type		Coaxial Cable		
Cable Size		7/8"		
Cable Type		Foam Dielectric		
Model Series		LCF78-50 Series RCF78-50 Series		
Connector Interface		4.3-10 Push-Pull		
Connector Type		OMNI FIT™ Standard		
Sealing Method		O-ring		
Gender		Male		
ELECTRICAL SPECIFICATIONS				
Nominal Impedance	Ohm	50		
3rd Order IM Product @ 2x20 Watts	dBc	-162 ; typical -166		
Maximum Frequency	GHz	6.0		
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.03 (36.6) 1.0 < f S 2.7 GHz: 1.04 (34.1) 2.7 < f S 3.7 GHz: 1.08 (28.3) 3.7 < f S 5.0 GHz: 1.10 (26.4) 5.0 < f S 6.0 GHz: 1.25 (19.1)		
MECHANICAL SPECIFICATIONS				
Plating Outer/Inner		Trimetal/Silver		
Length	mm (in)	57.5 (2.26)		
Outer Diameter	mm (in)	35.5 (1.4)		
Weight	kg (lb)	0.167 (0.37)		
Inner Contact Attachment		Spring Finger		
Outer Contact Attachment		Spring C-Ring		
ACCESSORIES	ACCESSORIES			
Wrench size front	mm (in)	22 (0.87)		
Wrench size rear	mm (in)	32 (1.26)		
Trimming Tool		TRIM-SET-L78-C02		
TESTING AND ENVIRONMENTAL				
Waterproof Level		IP68		

43MP-LCF78-C03 REV: B REV DATE: 07.Oct.2018 www.rfsworld.com



# 4.3-10 Male Push-Pull Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing



**External Document Links** 

**Notes** 

Installation Instruction

43MP-LCF78-C03 REV: B REV DATE: 07.Oct.2018 www.rfsworld.com



### 7-16 DIN Female Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminum) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications.

The 7-16 connector is the most rugged RF connection meeting all requirements even under the most severe environmental conditions.

#### **FEATURES / BENEFITS**

- Ost effective two-piece design for safe and easy installation
- Compatible with copper and aluminium cable types i.e. one connector for both outer conductor materials eliminates the risk of faulty connector installation and helps to keep inventory down
- Robust mechanical design for low and consistent intermodulation performance i.e. keeps the mobile network performance up reduces the number of dropped calls and avoids revenue losses
- Superior electrical performance for consistent and repeatable VSWR i.e. ensure network system performance
- Waterproof to IP 68 i.e. no downtime risk, secures revenue
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis



OMNI FIT™ Standard Connectors

#### **Technical Features**

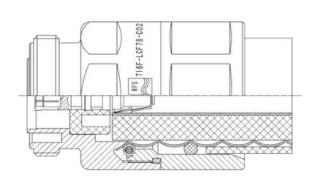
GENERAL SPECIFICATIONS				
Transmission Line Type		Coaxial Cable		
Cable Size		7/8"		
Cable Type		Foam Dielectric Ultraflexible Radiating		
Model Series		LCF78-50 Series RCF78-50 Series		
Connector Interface		7-16 DIN		
Connector Type		OMNI FIT™ Standard		
Sealing Method		O-ring		
Gender		Female		
ELECTRICAL SPECIFICATIONS				
Nominal Impedance	Ohm	50		
3rd Order IM Product @ 2x20 Watts	dBc	-159 typical		
Maximum Frequency	GHz	3.7		
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.03 (36.6) 1.0 < f S 2.7 GHz: 1.04 (34.1) 2.7 < f S 3.7 GHz: 1.08 (28.3)		
MECHANICAL SPECIFICATIONS				
Plating Outer/Inner		Trimetal/Silver		
Length	mm (in)	51.7 (2)		
Outer Diameter	mm (in)	35.5 (1.4)		
Weight	kg (lb)	0.15 (0.33)		
Inner Contact Attachment		Spring Finger		
Outer Contact Attachment		Spring O-Ring		
ACCESSORIES	ACCESSORIES			
Wrench size front	mm (in)	32 (1-1/4)		
Wrench size rear	mm (in)	32 (1-1/4)		
TESTING AND ENVIRONMENTAL				
Waterproof Level		IP68		

716F-LCF78-C02 REV: E REV DATE: 16. May 2014 www.rfsworld.com

716F-LCF78-C02



# 7-16 DIN Female Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing



### **External Document Links**

**Notes** 

Application Note

Installation Instruction

716F-LCF78-C02 REV: E REV DATE: 16. May 2014 www.rfsworld.com

716F-LCF78-C03





# 7-16 DIN Female Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminum) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. The 7-16 connector is the most rugged RF connection meeting all requirements even under the most severe environmental conditions.

#### **FEATURES / BENEFITS**

- Ost effective two-piece design for safe and easy installation
- Compatible with copper and aluminium cable types i.e. one connector for both outer conductor materials eliminates the risk of faulty connector installation and helps to keep inventory down
- On Robust mechanical design for low and consistent intermodulation performance i.e. keeps the mobile network performance up reduces the number of dropped calls and avoids revenue losses
- Superior electrical performance for consistent and repeatable VSWR i.e. ensure network system performance
- Materproof to IP 68 i.e. no downtime risk, secures revenue
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis



716F-LCF78-C03

#### **Technical Features**

GENERAL SPECIFICATIONS	
Transmission Line Type	Coaxial Cable
Cable Size	7/8"
Cable Type	Foam Dielectric Ultraflexible Radiating
Model Series	LCF78-50 Series RCF78-50 Series
Connector Interface	7-16 DIN

Connector Type OMNI FIT™ Standard

Sealing Method O-ring
Gender Female

#### **ELECTRICAL SPECIFICATIONS**

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-157 ; typical -160
Maximum Frequency	GHz	6.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.03 (36.6) 1.0 < f S 2.7 GHz: 1.04 (34.1) 2.7 < f S 3.7 GHz: 1.08 (28.3) 3.7 < f S 5.0 GHz: 1.15 (23.1) 5.0 < f S 6.0 GHz: 1.25 (19.1)

#### MECHANICAL SPECIFICATIONS

	Trimetal/Silver
mm (in)	52.5 (2.07)
mm (in)	35.5 (1.4)
kg (lb)	0.139 (0.306)
	Spring Finger
	Spring O-Ring
	mm (in)

#### **ACCESSORIES**

Wrench size front	mm (in)	24 (15/16)
Wrench size rear	mm (in)	32 (1-1/4)

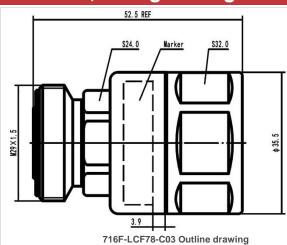
#### **TESTING AND ENVIRONMENTAL**

Waterproof Level	IP68	

716F-LCF78-C03 REV: B REV DATE: 07.Oct.2018 www.rfsworld.com



### 7-16 DIN Female Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing



#### **External Document Links**

Application Note

Installation Instruction

**Notes** 

716F-LCF78-C03 REV: B www.rfsworld.com REV DATE: 07.Oct.2018

716F-LCF78-D01



### 7-16 DIN Female Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and compression sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminium) cables. They are designed specifically to provide the highest quality connectorcable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications.

The 7-16 connector is the most rugged RF connection meeting all requirements even under the most severe environmental conditions. Sealing against outer conductor and jacket by means of O-Ring and 360° compression fit. Multifunctional, self-lubricating HighTech polymer assembly locks on cable corrugation, avoids electrochemical potential differences and compression-fits to the jacket.



OMNI FIT™ Premium Connectors

#### **FEATURES / BENEFITS**

- Ultra high PIM performance i.e. reduced interference leading to high customer satisfaction
- ℈ Two-piece design i.e. visual inspection of interlocking leads to improved installation security
- ℈ OMNI FIT™ concept i.e. streamlined order management and reduced stock level
- ℈ Watertight sealing in mated and unmated condition, i.e. reduced efforts during installation and improved security during operation
- Unique NiTin plating i.e. extreme resistance against corrosion even under hardest climatic and environmental circumstances
- Multi-thread (Tristart) design i.e. simplified and accelerated tightening process
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

#### **Technical Features**

<b>GENERA</b>	L SPECIFI	ICATIONS
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CENTER OF EACH PARTICLE		
Transmission Line Type	Coaxial Cable	
Cable Size	7/8"	
Cable Type	Foam Dielectric	
Model Series	LCF78-50 Series, RCF78-50 Series	
Connector Interface	7-16 DIN	
Connector Type	OMNI FIT™ PREMIUM Straight	
Sealing Method	O-Ring + 360° Compression	
Gender	Female	

#### **ELECTRICAL SPECIFICATIONS**

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-163 ; typical -167
Maximum Frequency	GHz	3.7
VSWR, Return Loss	- (- )	0 < f S 1.0 GHz: 1.02 (40.0) 1.0 < f S 2.7 GHz: 1.03 (36.6) 2.7 < f S 3.7 GHz: 1.06 (30.7)

#### **MECHANICAL SPECIFICATIONS**

Plating Outer/Inner		NiTin/Silver
Length	mm (in)	61.95 (2.44)
Outer Diameter	mm (in)	40 (1.57)
Weight	kg (lb)	0.17 (0.37)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		360° clamping

#### **ACCESSORIES**

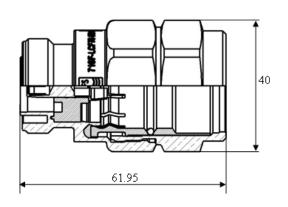
Wrench size front	mm (in)	36 (1-7/16)
Wrench size rear	mm (in)	36 (1-7/16)
Trimming Tool		TRIM-78-L TRIM-SET-L78-D01 TRIM-LCF78-D01-A
TECTING AND ENVIRONMENTAL		

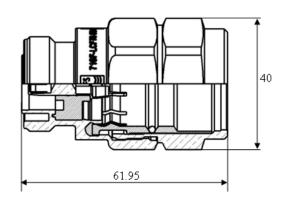
#### TESTING AND ENVIRONMENTAL

716F-LCF78-D01 REV: E REV DATE: 02.Dec.2013 www.rfsworld.com



# 7-16 DIN Female Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and compression sealing





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**Notes** 

Installation Instruction

**716F-LCF78-D01** REV: E REV DATE: 02.Dec.2013 **www.rfsworld.com** 

716F-LCF78-E01





www.rfsworld.com

### 7-16 DIN Female Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and compression sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminium) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications.

The 7-16 connector is the most rugged RF connection meeting all requirements even under the most severe environmental conditions. Sealing against outer conductor and jacket by means of O-Ring and 360° compression fit.



#### **FEATURES / BENEFITS**

- (a) Ultra high PIM performance i.e. reduced interference leading to high customer satisfaction
- Two-piece design i.e. visual inspection of interlocking leads to improved installation security
- OMNI FIT™ concept i.e. streamlined order management and reduced stock level
- Watertight sealing in mated and unmated condition, i.e. reduced efforts during installation and improved security during operation
- Tri metal alloy plating i.e. extreme resistance against corrosion even under hardest climatic and environmental circumstances
- Multi-thread (Tristart) design i.e. simplified and accelerated tightening process
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

#### **Technical Features**

GENERAL SPECIFICATIONS			
Transmission Line Type		Coaxial Cable	
Cable Size		7/8"	
Cable Type		Foam Dielectric	
Model Series		LCF78-50 Series, RCF78-50 Series	
Connector Interface		7-16 DIN	
Connector Type		OMNI FIT™ PREMIUM Straight	
Sealing Method		O-Ring + 360° Compression	
Gender		Female	
ELECTRICAL SPECIFICATIONS			
Nominal Impedance	Ohm	50	
3rd Order IM Product @ 2x20 Watts	dBc	-163 ; typical -167	
Maximum Frequency	GHz	6.0	
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.0) 1.0 < f S 2.2 GHz: 1.03 (37.0) 2.2 < f S 2.7 GHz: 1.03 (36.0) 2.7 < f S 3.8 GHz: 1.06 (31.0) 3.8 < f S 5.0 GHz: 1.11 (26.0) 5.0 < f S 6.0 GHz: 1.15 (23.0)	
MECHANICAL SPECIFICATIONS			
Plating Outer/Inner		Tri metal alloy / Silver	
Length	mm (in)	63.6 (2.5)	
Outer Diameter	mm (in)	37 (1.46)	
Weight	kg (lb)	0.18 (0.4)	
Inner Contact Attachment		Spring Finger	
Outer Contact Attachment		360° clamping	
ACCESSORIES			
Wrench size front	mm (in)	34 (1-7/16)	
Wrench size rear	mm (in)	34 (1-7/16)	
Trimming Tool		TRIM-78-L TRIM-SET-L78-D01 TRIM-LCF78-D01-A	
TESTING AND ENVIRONMENTAL			
Waterproof Level		IP68	

All information contained in the present datasheet is subject to confirmation at time of ordering

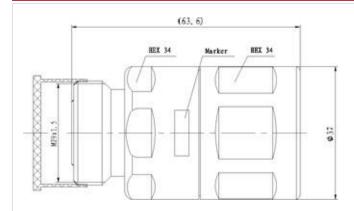
716F-LCF78-E01

REV: A

REV DATE: 18.Feb.2020



# 7-16 DIN Female Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and compression sealing



**External Document Links** 

**Notes** 

Installation Instruction

**716F-LCF78-E01** REV: A REV DATE: 18.Feb.2020 www.rfsworld.com



### 7-16 DIN Male Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminum) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications.

The 7-16 connector is the most rugged RF connection meeting all requirements even under the most severe environmental conditions.

#### **FEATURES / BENEFITS**

- Ost effective two-piece design for safe and easy installation
- Ompatible with copper and aluminium cable types i.e. one connector for both outer conductor materials eliminates the risk of faulty connector installation and helps to keep inventory down
- Robust mechanical design for low and consistent intermodulation performance i.e. keeps the mobile network performance up, reduces the number of dropped calls and avoids revenue losses
- Superior electrical performance for consistent and repeatable low VSWR i.e. improved network system performance
- Materproof to IP 68 i.e. no downtime risk, secures revenue
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis



OMNI FIT™ Standard Connectors

#### **Technical Features**

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SERENCE OF ESTITION		
Transmission Line Type	Coaxial Cable	
Cable Size	7/8"	
Cable Type	Foam Dielectric Ultraflexible Radiating	
Model Series	LCF78-50 Series RCF78-50 Series	
Connector Interface	7-16 DIN	
Connector Type	OMNI FIT™ Standard	
Sealing Method	O-ring	
Gender	Male	

### **ELECTRICAL SPECIFICATIONS**

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-159 typical
Maximum Frequency	GHz	3.7
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.03 (36.6) 1.0 < f S 2.7 GHz: 1.04 (34.1) 2.7 < f S 3.7 GHz: 1.08 (28.3)

#### **MECHANICAL SPECIFICATIONS**

Plating Outer/Inner		Trimetal/Silver
Length	mm (in)	57.3 (2.3)
Outer Diameter	mm (in)	35.5 (1.4)
Weight	kg (lb)	0.18 (0.4)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		Spring O-Ring
ACCESSORIES		

Wrench size front	mm (in)	32 (1-1/4)
Wrench size rear	mm (in)	32 (1-1/4)
TESTING AND ENVIRONMENTAL		

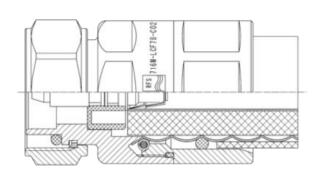
#### TESTING AND ENVIRONMENTAL

Waterproof Level	IP68

716M-LCF78-C02 REV: E REV DATE: 16. May 2014 www.rfsworld.com



# 7-16 DIN Male Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing



### **External Document Links**

**Notes** 

Application Note
Installation Instruction

716M-LCF78-C02 REV: E REV DATE: 16. May 2014 www.rfsworld.com



### 7-16 Male Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, Oring sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminum) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment.

The 7-16 connector is the most rugged RF connection meeting all requirements even under the most severe environmental conditions.

#### **FEATURES / BENEFITS**

- Cost effective two-piece design for safe and easy installation
- Compatible with copper and aluminium cable types i.e. one connector for both outer conductor materials eliminates the risk of faulty connector installation and helps to keep inventory down
- Robust mechanical design for low and consistent intermodulation performance i.e. keeps the mobile network performance up reduces the number of dropped calls and avoids revenue losses
- Superior electrical performance for consistent and repeatable VSWR i.e. ensure network system performance
- Waterproof to IP 68 i.e. no downtime risk, secures revenue
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis



716M-LCF78-C03

#### **Technical Features**

S

Transmission Line Type	Coaxial Cable
Cable Size	7/8"
Cable Type	Foam Dielectric
Model Series	LCF78-50 Series RCF78-50 Series
Connector Interface	7-16
Connector Type	OMNI FIT™ Standard
Sealing Method	O-ring
Gender	Male

#### **ELECTRICAL SPECIFICATIONS**

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-157 ; typical -160
Maximum Frequency	GHz	6.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.03 (36.6) 1.0 < f S 2.7 GHz: 1.04 (34.1) 2.7 < f S 3.7 GHz: 1.08 (28.3) 3.7 < f S 5.0 GHz: 1.15 (23.1) 5.0 < f S 6.0 GHz: 1.25 (19.1)

#### **MECHANICAL SPECIFICATIONS**

Plating Outer/Inner		Trimetal/Silver
Length	mm (in)	57.9 (2.28)
Outer Diameter	mm (in)	36 (1.42)
Weight	kg (lb)	0.174 (0.384)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		Spring C-Ring
ACCESCODIES		

#### **ACCESSORIES**

Wrench size front	mm (in)	24 (0.95)
Wrench size rear	mm (in)	32 (1.26)
Trimming Tool		TRIM-SET-L78-C02
TESTING AND ENVIRONMENTAL		

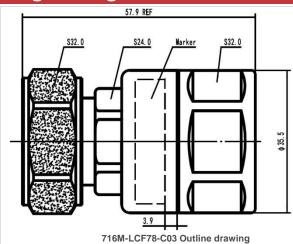
#### **TESTING AND ENVIRONMENTAL**

Waterproof Level		IP68
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716M-LCF78-C03 REV: B REV DATE: 07.Oct.2018 www.rfsworld.com



# 7-16 Male Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing



**External Document Links** 

**Notes** 

Installation Instruction

**716M-LCF78-C03** REV: B REV DATE: 07.Oct.2018 **www.rfsworld.com** 



### 7-16 DIN Male Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and compression sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminium) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications.

The 7-16 connector is the most rugged RF connection meeting all requirements even under the most severe environmental conditions. Sealing against outer conductor and jacket by means of O-Ring and 360° compression fit. Multifunctional, self-lubricating HighTech polymer assembly locks on cable corrugation, avoids electrochemical potential differences and compression-fits to the jacket.

OMNI FIT™ Premium Connectors

#### **FEATURES / BENEFITS**

- Ultra high PIM performance i.e. reduced interference leading to high customer satisfaction
- Two-piece design i.e. visual inspection of interlocking leads to improved installation security
- OMNI FIT™ concept i.e. streamlined order management and reduced stock level
- Watertight sealing in mated and unmated condition, i.e. reduced efforts during installation and improved security during operation
- Unique NiTin plating i.e. extreme resistance against corrosion even under hardest climatic and environmental circumstances
- Multi-thread (Tristart) design i.e. simplified and accelerated tightening process
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

#### **Technical Features**

GENER A	AL SP	ECIFIC	ATIC	SNC
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SERENCE OF ESH ISTANCES	
Transmission Line Type	Coaxial Cable
Cable Size	7/8"
Cable Type	Foam Dielectric
Model Series	LCF78-50 Series, RCF78-50 Series
Connector Interface	7-16 DIN
Connector Type	OMNI FIT™ PREMIUM Straight
Sealing Method	O-Ring + 360° Compression
Gender	Male

#### **ELECTRICAL SPECIFICATIONS**

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-163 ; typical -167
Maximum Frequency	GHz	3.7
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.0) 1.0 < f S 2.7 GHz: 1.03 (36.6) 2.7 < f S 3.7 GHz: 1.06 (30.7)

#### **MECHANICAL SPECIFICATIONS**

Plating Outer/Inner		NiTin/Silver
Length	mm (in)	65.25 (2.57)
Outer Diameter	mm (in)	40 (1.57)
Weight	kg (lb)	0.2 (0.44)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		360° clamping
ACCESCODIES		

#### ACCESSORIES

Wrench size front	mm (in)	36 (1-7/16)
Wrench size rear	mm (in)	36 (1-7/16)
Trimming Tool		TRIM-78-L TRIM-SET-L78-D01 TRIM-LCF78-D01-A

#### TESTING AND ENVIRONMENTAL

Waterproof Level	IP68	

All information contained in the present datasheet is subject to confirmation at time of ordering

REV: E

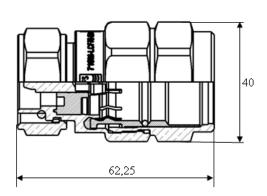
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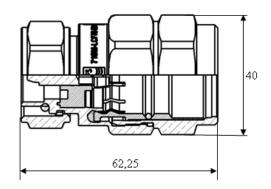
716M-LCF78-D01

REV DATE: 15-Sep-2011



# 7-16 DIN Male Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and compression sealing





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**Notes** 

Installation Instruction

716M-LCF78-D01 REV: E REV DATE: 15-Sep-2011 www.rfsworld.com

716M-LCF78-E01



### 7-16 DIN Male Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and compression sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminium) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications.

The 7-16 connector is the most rugged RF connection meeting all requirements even under the most severe environmental conditions. Sealing against outer conductor and jacket by means of O-Ring and 360° compression fit.



#### **FEATURES / BENEFITS**

- (a) Ultra high PIM performance i.e. reduced interference leading to high customer satisfaction
- Two-piece design i.e. visual inspection of interlocking leads to improved installation security
- OMNI FIT™ concept i.e. streamlined order management and reduced stock level
- Watertight sealing in mated and unmated condition, i.e. reduced efforts during installation and improved security during operation
- Tri metal alloy plating i.e. extreme resistance against corrosion even under hardest climatic and environmental circumstances
- Multi-thread (Tristart) design i.e. simplified and accelerated tightening process
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

### Technical Features GENERAL SPECIFICATIONS

Transmission Line Type

Cable Size

Wrench size rear

Waterproof Level

**TESTING AND ENVIRONMENTAL** 

**Trimming Tool** 

Cable Type		Foam Dielectric
Model Series		LCF78-50 Series, RCF78-50 Series
Connector Interface		7-16 DIN
Connector Type		OMNI FIT™ PREMIUM Straight
Sealing Method		O-Ring + 360° Compression
Gender		Male
ELECTRICAL SPECIFICATIONS		
Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-163 ; typical -167
Maximum Frequency	GHz	6.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.0) 1.0 < f S 2.2 GHz: 1.03 (37.0) 2.2 < f S 2.7 GHz: 1.03 (36.0) 2.7 < f S 3.8 GHz: 1.06 (31.0) 3.8 < f S 5.0 GHz: 1.11 (26.0) 5.0 < f S 6.0 GHz: 1.15 (23.0)
MECHANICAL SPECIFICATIONS		
Plating Outer/Inner		Tri metal alloy / Silver
Length	mm (in)	66.5 (2.62)
Outer Diameter	mm (in)	37 (1.46)
Weight	kg (lb)	0.2 (0.44)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		360° clamping
ACCESSORIES		
Wrench size front	mm (in)	32 / 34

Coaxial Cable

7/8"

716M-LCF78-E01 REV: A REV DATE: 18-Feb-2020 www.rfsworld.com

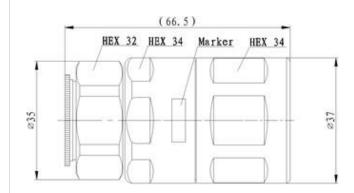
mm (in)

TRIM-78-L TRIM-SET-L78-D01 TRIM-LCF78-D01-A

**IP68** 



# 7-16 DIN Male Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and compression sealing



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**Notes** 

Installation Instruction

716M-LCF78-E01 REV: A REV DATE: 18-Feb-2020 www.rfsworld.com

716MR-LCF78-D01



### 7-16 DIN Male Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Right Angle, O-Ring and compression sealing

Radio Frequency Systems line of high performance coaxial cable connectors are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up the attachment of connectors to CELLFLEX® coaxial cables.

All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications.

The N connector meets all technical requirements and covers high frequencies as well as legacy applications. Sealing against outer conductor and jacket by means of O-Ring and 360 compression fit. Multifunctional, self-lubricating HighTech polymer assembly locks on cable corrugation, avoids electrochemical potential differences and compression-fits to the jacket.;

OMNI FIT™ Premium Connectors

#### **FEATURES / BENEFITS**

- Ultra high PIM performance i.e. reduced interference leading to high customer satisfaction
- Two-piece design i.e. visual inspection of interlocking leads to improved installation security
- OMNI FIT™ concept i.e. streamlined order management and reduced stock level
- Watertight sealing in mated and unmated condition, i.e. reduced efforts during installation and improved security during operation
- Unique NiTin plating i.e. extreme resistance against corrosion even under hardest climatic and environmental circumstances
- Multi-thread (Tristart) design i.e. simplified and accelerated tightening process
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

### Technical Features

**TESTING AND ENVIRONMENTAL** 

Waterproof Level

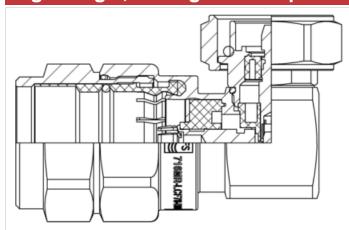
GENERAL SPECIFICATIONS		
Transmission Line Type		Coaxial Cable
Cable Size		7/8"
Cable Type		Foam Dielectric
Model Series		LCF78-50 Series, RCF78-50 Series
Connector Interface		7-16 DIN
Connector Type		OMNI FIT™ PREMIUM Right Angle
Sealing Method		O-Ring + 360° Compression
Gender		Male
ELECTRICAL SPECIFICATIONS		
Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-163 ; typical -167
Maximum Frequency	GHz	3.7
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.1) 1.0 < f S 2.7 GHz: 1.04 (34.2) 2.7 < f S 3.7 GHz: 1.08 (28.3)
MECHANICAL SPECIFICATIONS		
Plating Outer/Inner		NiTin/Silver
Length	mm (in)	82.85 (3.26)
Outer Diameter	mm (in)	52.4 (2.06)
Weight	kg (lb)	0.33 (0.73)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		360° clamping
ACCESSORIES		
Wrench size front	mm (in)	36 (1-7/16)
Wrench size rear	mm (in)	36 (1-7/16)
Trimming Tool		TRIM-78-L TRIM-SET-L78-D01 TRIM-LCF78-D01-A

716MR-LCF78-D01 REV: E REV DATE: 10.Jan.2014 www.rfsworld.com

IP68



# 7-16 DIN Male Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Right Angle, O-Ring and compression sealing



**External Document Links** 

**Notes** 

Installation Instruction

716MR-LCF78-D01 REV: E REV DATE: 10.Jan.2014 www.rfsworld.com

78EIA-LCF78-062



### 7/8" EIA Connector for 7/8" Coaxial Cable, RAPID FIT™ Sealing compound

Radio Frequency Systems' line of high performance coaxial cable connectors are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up the attachment of connectors to CELLFLEX® coaxial cables. RFS connectors are fully tested for mechanical and electrical compliance specifications. They are available in all popular cable sizes in a variety of mating interfaces. To join two cables with EIA connectors, two identical socket connectors are installed on either end of the cables to be joined, and a coupling element is used to make the connection of the center conductor. The coupling element must be ordered separately with the exception of the S-Line male versions that have a captivated coupling element. Connectors are available in sizes matching the nominal cable size. EIA connectors provide optimal power handling for the complete transmission line system.



#### RAPID FIT™ Connectors

#### **FEATURES / BENEFITS**

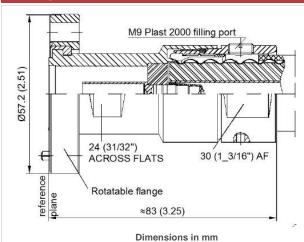
- Single-piece design for Fast and Easy Installation Reliable and simple attachment avoids unnecessary connector adjustments and provides outstanding performance every time. Saves time and provides cost savings.
- Robust Mechanical Design
  Low and consistent intermodulation performance guarantees outstanding system sensitivity.
- Excellent Electrical Performance
   Consistent and repeatable low VSWR improves overall system performance and margin and reduces mismatch
   losses
- Totally Waterproof according to IP68
   Assures safe, long term operation in the harshest of environments.

#### **Technical Features**

GENERAL SPECIFICATIONS			
Transmission Line Type		Coaxial Cable	
Cable Size		7/8"	
Cable Type		Foam Dielectric	
Model Series		LCF78-50A-Series, RCF78-50A-Series	
Connector Interface		7/8" EIA	
Connector Type		RAPID FIT™	
Sealing Method		Sealing compound 1)	
Gender		None	
ELECTRICAL SPECIFICATIONS			
3rd Order IM Product @ 2x20 Watts	dBc	<-156	
Maximum Frequency	GHz	3.7	
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.0) 1.0 < f S 2.7 GHz: 1.04 (34.1) 2.7 < f S 3.7 GHz: 1.06 (30.7)	
MECHANICAL SPECIFICATIONS			
Plating Outer/Inner		Silver/Silver	
Length	mm (in)	83 (3.3)	
Outer Diameter	mm (in)	57.2 (2.3)	
Weight	kg (lb)	0.38 (0.84)	
Inner Contact Attachment		Self Tapping	
Outer Contact Attachment		Spring Finger	
ACCESSORIES			
Wrench size front	mm (in)	30 (1-3/16)	
Wrench size rear	mm (in)	30 (1-3/16)	
Trimming Tool		TRIM-Series-A	
TESTING AND ENVIRONMENTAL			
Waterproof Level		IP68	
Sealing Volume	cm³ (ounces)	7 (0.26)	

78EIA-LCF78-062 REV: E REV DATE: 13.May.2016 www.rfsworld.com

## 7/8" EIA Connector for 7/8" Coaxial Cable, RAPID FIT™ Sealing compound



### **External Document Links**

Notes

Installation Instruction

1) The sealing compound must be ordered separately.

78EIA-LCF78-062 REV: E REV DATE: 13.May.2016 www.rfsworld.com

NF-LCF78-C02



### N Female Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminum) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications. The N connector is one of the most common RF connector types and meets all requirements even under the most severe environmental conditions.

OMNI FIT™ Standard Connectors

#### **FEATURES / BENEFITS**

- Ost effective two-piece design for safe and easy installation
- Ocmpatible with copper and aluminium cable types i.e. one connector for both outer conductor materials eliminates the risk of faulty connector installation and helps to keep inventory down
- Robust mechanical design for low and consistent intermodulation performance i.e. keeps the mobile network performance up, reduces the number of dropped calls and avoids revenue losses
- Standard electrical performance for consistent and repeatable VSWR i.e. ensure network system performance
- Waterproof to IP 68 i.e. no downtime risk, secures revenue
- RoHS (EU) compliant i.e. can be used on a global basis

#### **Technical Features**

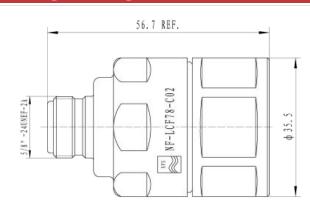
GENERAL SPECIFICATIONS			
Transmission Line Type		Coaxial Cable	
Cable Size		7/8"	
Cable Type		Foam Dielectric	
Model Series		LCF78-50 Series RCF78-50 Series	
Connector Interface		N	
Connector Type		OMNI FIT™ Standard	
Sealing Method		O-ring	
Gender		Female	
ELECTRICAL SPECIFICATIONS			
Nominal Impedance	Ohm	50	
3rd Order IM Product @ 2x20 Watts	dBc	-159 typical	
Maximum Frequency	GHz	3.7	
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.03 (36.6) 1.0 < f S 2.7 GHz: 1.04 (34.1) 2.7 < f S 3.7 GHz: 1.08 (28.3)	
MECHANICAL SPECIFICATIONS			
Plating Outer/Inner		Trimetal/Silver	
Length	mm (in)	56.8 (2.23)	
Outer Diameter	mm (in)	35.5 (1.4)	
Weight	kg (lb)	0.15 (0.33)	
Inner Contact Attachment		Spring Finger	
Outer Contact Attachment		Spring O-Ring	
ACCESSORIES			
Wrench size front	mm (in)	32 (1-1/4)	
Wrench size rear	mm (in)	32 (1-1/4)	
TESTING AND ENVIRONMENTAL			
Waterproof Level		IP68	

NF-LCF78-C02 REV: E REV DATE: 16. May 2014 www.rfsworld.com

NF-LCF78-C02



# N Female Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing



### **External Document Links**

**Notes** 

Application Note

Installation Instruction

NF-LCF78-C02 REV: E REV DATE: 16. May 2014 www.rfsworld.com

NF-LCF78-C03





### N Female Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, Oring sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminum) cables. They are designed specifically to provide the highest quality connectorcable interface while simplifying and speeding up connector attachment.

#### **FEATURES / BENEFITS**

- Cost effective two-piece design for safe and easy installation
- ⊕ Compatible with copper and aluminium cable types i.e. one connector for both outer conductor materials eliminates the risk of faulty connector installation and helps to keep inventory down
- Robust mechanical design for low and consistent intermodulation performance i.e. keeps the mobile network performance up reduces the number of dropped calls and avoids revenue losses ℈
- ℈ Superior electrical performance for consistent and repeatable VSWR i.e. ensure network system performance
- ℈ Waterproof to IP 68 i.e. no downtime risk, secures revenue
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

NF-LCF78-C03

#### **Technical Features**

GEN	ERAL	SPECI	FICA	FIONS

Transmission Line Type	Coaxial Cable
Cable Size	7/8"
Cable Type	Foam Dielectric
Model Series	LCF78-50 Series RCF78-50 Series
Connector Interface	N
Connector Type	OMNI FIT™ Standard
Sealing Method	O-ring
Gender	Female

#### **ELECTRICAL SPECIFICATIONS**

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-157 ; typical -160
Maximum Frequency	GHz	6.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.03 (36.6) 1.0 < f S 2.7 GHz: 1.04 (34.1) 2.7 < f S 3.7 GHz: 1.08 (28.3) 3.7 < f S 5.0 GHz: 1.15 (23.1) 5.0 < f S 6.0 GHz: 1.25 (19.1)

#### **MECHANICAL SPECIFICATIONS**

Plating Outer/Inner		Trimetal/Silver
Length	mm (in)	56.9 (2.24)
Outer Diameter	mm (in)	35.5 (1.4)
Weight	kg (lb)	0.137 (0.302)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		Spring C-Ring
ACCESSORIES		

Wrench size front	mm (in)	22 (0.87)
Wrench size rear	mm (in)	32 (1.26)
Trimming Tool		TRIM-SET-L78-C02

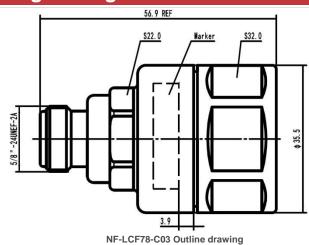
#### TESTING AND ENVIRONMENTAL

Waterproof Level	IP68	

REV: B NF-LCF78-C03 **REV DATE: 07.Oct.2018** www.rfsworld.com



## N Female Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing



External	Document	Links
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Notes

Installation Instruction

NF-LCF78-C03 REV: B REV DATE: 07.Oct.2018 www.rfsworld.com

NF-LCF78-D01



## N Female Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and compression sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminium) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications.

The N connector meets all technical requirements and covers high frequencies as well as legacy applications. Sealing against outer conductor and jacket by means of O-Ring and 360° compression fit. Multifunctional, self-lubricating HighTech polymer assembly locks on cable corrugation, avoids electrochemical potential differences and compression-fits to the jacket.



OMNI FIT™ Premium Connectors

#### **FEATURES / BENEFITS**

- Ultra high PIM performance i.e. reduced interference leading to high customer satisfaction
- Two-piece design i.e. visual inspection of interlocking leads to improved installation security
- OMNI FIT™ concept i.e. streamlined order management and reduced stock level
- Watertight sealing in mated and unmated condition, i.e. reduced efforts during installation and improved security during operation
- Unique NiTin plating i.e. extreme resistance against corrosion even under hardest climatic and environmental circumstances
- Multi-thread (Tristart) design i.e. simplified and accelerated tightening process
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

#### **Technical Features**

<b>GENERA</b>	L SPECIFI	ICATIONS
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SEITER SE ESTITIONS	
Transmission Line Type	Coaxial Cable
Cable Size	7/8"
Cable Type	Foam Dielectric
Model Series	LCF78-50 Series, RCF78-50 Series
Connector Interface	N
Connector Type	OMNI FIT™ PREMIUM Straight
Sealing Method	O-Ring + 360° Compression
Gender	Female

### **ELECTRICAL SPECIFICATIONS**

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-156 ; typical -162
Maximum Frequency	GHz	3.7
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.0) 1.0 < f S 2.7 GHz: 1.03 (36.6) 2.7 < f S 3.7 GHz: 1.06 (30.7)

### MECHANICAL SPECIFICATIONS

Plating Outer/Inner		NiTin/Silver
Length	mm (in)	68.5 (2.62)
Outer Diameter	mm (in)	40 (1.57)
Weight	kg (lb)	0.17 (0.37)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		360° clamping

### ACCESSORIES

Wrench size front	mm (in)	36 (1-7/16)
Wrench size rear	mm (in)	36 (1-7/16)
Trimming Tool		TRIM-78-L TRIM-SET-L78-D01 TRIM-LCF78-D01-A

### TESTING AND ENVIRONMENTAL

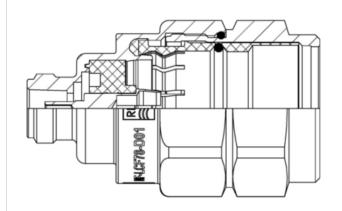
Waterproof Level		IP68
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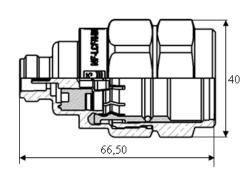
NF-LCF78-D01 REV: E REV DATE: 15-Sep-2011 www.rfsworld.com

NF-LCF78-D01



# N Female Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and compression sealing





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**Notes** 

Installation Instruction

NF-LCF78-D01 REV: E REV DATE: 15-Sep-2011 www.rfsworld.com

NF-LCF78-E01



## N Female Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and 360° compression sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminium) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment.

All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications. The N connector meets all technical requirements and covers high frequencies as well as legacy applications. Sealing against outer conductor and jacket by means of o-ring and 360° compression fit.



#### **FEATURES / BENEFITS**

- Ultra high PIM performance i.e. reduced interference leading to high customer satisfaction
- Two-piece design i.e. visual inspection of interlocking leads to improved installation security
- OMNI FIT™ concept i.e. streamlined order management and reduced stock level
- Watertight sealing in mated and unmated condition, i.e. reduced efforts during installation and improved security during operation
- Tri metal alloy plating i.e. extreme resistance against corrosion even under hardest climatic and environmental circumstances
- Multi-thread (Tristart) design i.e. simplified and accelerated tightening process
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

### Technical Features

Waterproof Level

Transmission Line Type		Coaxial Cable
Cable Size		7/8"
Cable Type		Foam Dielectric  Superflexible
Model Series		LCF78-50 Series
Connector Interface		N
Connector Type		OMNI FIT™ PREMIUM Straight
Sealing Method		sealing rubber
Gender		Female
ELECTRICAL SPECIFICATIONS		
Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-158 ; typical -162
Maximum Frequency	GHz	6.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.0) 1.0 < f S 2.2 GHz: 1.03 (37.0) 2.2 < f S 2.7 GHz: 1.03 (36.0) 2.7 < f S 3.8 GHz: 1.07 (30.0) 3.8 < f S 5.0 GHz: 1.11 (26.0) 5.0 < f S 6.0 GHz: 1.15 (23.0)
MECHANICAL SPECIFICATIONS		
Plating Outer/Inner		Tri metal alloy / Silver
Length	mm (in)	75.1 (2.96)
Outer Diameter	mm (in)	37 (1.46)
Weight	kg (lb)	0.12 (0.26)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		360° clamping
ACCESSORIES		
Wrench size front	mm (in)	34
Wrench size rear	mm (in)	34
Trimming Tool		TRIM-LCF78-D01-A
TESTING AND ENVIRONMENTAL		

External Document Links	Notes
Installation Instruction	

IP68

NF-LCF78-E01 REV: A REV DATE: 31.Aug.2020 www.rfsworld.com

NM-LCF78-C02



### N Male Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminum) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications. The N connector is one of the most common RF connector types and meets all requirements even under the most severe environmental conditions.

OMNI FIT™ Standard Connectors

#### **FEATURES / BENEFITS**

- Ost effective two-piece design for safe and easy installation
- Occupatible with copper and aluminium cable types i.e. one connector for both outer conductor materials eliminates the risk of faulty connector installation and helps to keep inventory down
- Robust mechanical design for low and consistent intermodulation performance i.e. keeps the mobile network performance up, reduces the number of dropped calls and avoids revenue losses
- Standard electrical performance for consistent and repeatable VSWR i.e. ensure network system performanceWaterproof to IP 68 i.e. no downtime risk, secures revenue
- RoHS (EU) compliant i.e. can be used on a global basis

#### **Technical Features**

CHI	SPF	ATIONS

Transmission Line Type	Coaxial Cable
Cable Size	7/8"
Cable Type	Foam Dielectric
Model Series	LCF78-50 Series RCF78-50 Series
Connector Interface	N
Connector Type	OMNI FIT™ Standard
Sealing Method	O-ring
Gender	Male

#### **ELECTRICAL SPECIFICATIONS**

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-159 typical
Maximum Frequency	GHz	3.7
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.03 (36.6) 1.0 < f S 2.7 GHz: 1.04 (34.1) 2.7 < f S 3.7 GHz: 1.08 (28.3)

#### **MECHANICAL SPECIFICATIONS**

Plating Outer/Inner		Trimetal/Silver
Length	mm (in)	62.8 (2.47)
Outer Diameter	mm (in)	35.5 (1.4)
Weight	kg (lb)	0.16 (0.35)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		Spring O-Ring
ACCESSORIES		

#### ACCESSORIES

Waterproof Level

Wrench size front	mm (in)	32 (1-1/4)
Wrench size rear	mm (in)	32 (1-1/4)
TESTING AND ENVIRONMENTAL		

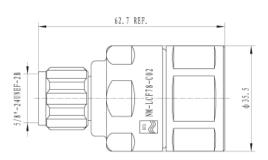
IP68

NM-LCF78-C02 REV: E REV DATE: 16. May 2014 www.rfsworld.com

NM-LCF78-C02



# N Male Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing



# External Document Links Application Note Installation Instruction

NM-LCF78-C02 REV: E REV DATE: 16. May 2014 www.rfsworld.com

**NM-LCF78-C03** 



### N Male Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminum) cables. They are designed specifically to provide the highest quality connectorcable interface while simplifying and speeding up connector attachment.

#### **FEATURES / BENEFITS**

- Cost effective two-piece design for safe and easy installation
- ⊕ Compatible with copper and aluminium cable types i.e. one connector for both outer conductor materials eliminates the risk of faulty connector installation and helps to keep inventory down
- Robust mechanical design for low and consistent intermodulation performance i.e. keeps the mobile network performance up reduces the number of dropped calls and avoids revenue losses ℈
- ℈ Superior electrical performance for consistent and repeatable VSWR i.e. ensure network system performance
- ℈ Waterproof to IP 68 i.e. no downtime risk, secures revenue
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

NM-LCF78-C03

#### **Technical Features**

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Transmission Line Type	Coaxial Cable
Cable Size	7/8"
Cable Type	Foam Dielectric
Model Series	LCF78-50 Series RCF78-50 Series
Connector Interface	N
Connector Type	OMNI FIT™ Standard
Sealing Method	O-ring
Gender	Male

#### **ELECTRICAL SPECIFICATIONS**

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-157 ; typical -160
Maximum Frequency	GHz	6.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.03 (36.6) 1.0 < f S 2.7 GHz: 1.04 (34.1) 2.7 < f S 3.7 GHz: 1.08 (28.3) 3.7 < f S 5.0 GHz: 1.15 (23.1) 5.0 < f S 6.0 GHz: 1.25 (19.1)

#### **MECHANICAL SPECIFICATIONS**

Plating Outer/Inner		Trimetal/Silver
Length	mm (in)	62.7 (2.47)
Outer Diameter	mm (in)	35.5 (1.4)
Weight	kg (lb)	0.147 (0.324)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		Spring C-Ring
ACCESSORIES		

Wrench size front	mm (in)	22 (0.87)
Wrench size rear	mm (in)	32 (1.26)
Trimming Tool		TRIM-SET-L78-C02

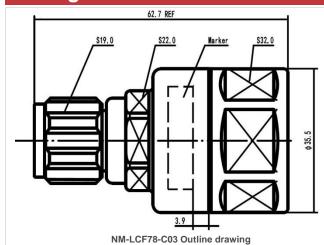
#### TESTING AND ENVIRONMENTAL

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Waterproof Level	IP68			

REV: B NM-LCF78-C03 **REV DATE: 07.Oct.2018** www.rfsworld.com



## N Male Connector for 7/8" Coaxial Cable, OMNI FIT™ standard, O-ring sealing



**External Document Links** 

**Notes** 

Installation Instruction

NM-LCF78-C03 REV: B REV DATE: 07.Oct.2018 www.rfsworld.com

NM-LCF78-D01



## N Male Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and compression sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminium) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment. All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications.

The N connector meets all technical requirements and covers high frequencies as well as legacy applications. Sealing against outer conductor and jacket by means of O-Ring and 360° compression fit. Multifunctional, self-lubricating HighTech polymer assembly locks on cable corrugation, avoids electrochemical potential differences and compression-fits to the jacket.



OMNI FIT™ Premium Connectors

#### **FEATURES / BENEFITS**

- Outra high PIM performance i.e. reduced interference leading to high customer satisfaction
- Two-piece design i.e. visual inspection of interlocking leads to improved installation security
- OMNI FIT™ concept i.e. streamlined order management and reduced stock level
- Watertight sealing in mated and unmated condition, i.e. reduced efforts during installation and improved security during operation
- Unique NiTin plating i.e. extreme resistance against corrosion even under hardest climatic and environmental circumstances
- Multi-thread (Tristart) design i.e. simplified and accelerated tightening process
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

#### **Technical Features**

GENERAL SPECIFICA	ATIONS
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CENTER OF EGILLONG	
Transmission Line Type	Coaxial Cable
Cable Size	7/8"
Cable Type	Foam Dielectric
Model Series	LCF78-50 Series, RCF78-50 Series
Connector Interface	N
Connector Type	OMNI FIT™ PREMIUM Straight
Sealing Method	O-Ring + 360° Compression
Gender	Male

#### **ELECTRICAL SPECIFICATIONS**

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-156 ; typical -162
Maximum Frequency	GHz	3.7
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.0) 1.0 < f S 2.7 GHz: 1.03 (36.6) 2.7 < f S 3.7 GHz: 1.06 (30.7)

#### MECHANICAL SPECIFICATIONS

Plating Outer/Inner		NiTin/Silver
Length	mm (in)	73.65 (2.9)
Outer Diameter	mm (in)	40 (1.57)
Weight	kg (lb)	0.18 (0.4)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		360° clamping

#### **ACCESSORIES**

Wrench size front	mm (in)	36 (1-7/16)
Wrench size rear	mm (in)	36 (1-7/16)
Trimming Tool		TRIM-78-L TRIM-SET-L78-D01 TRIM-LCF78-D01-A

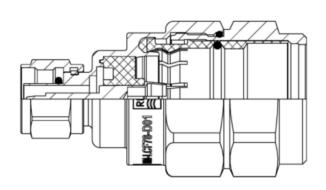
#### TESTING AND ENVIRONMENTAL

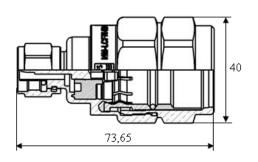
Waterproof Level IP68
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NM-LCF78-D01 REV: E REV DATE: 01.Aug.2016 www.rfsworld.com



# N Male Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and compression sealing





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**Notes** 

Installation Instruction

NM-LCF78-D01 REV: E REV DATE: 01.Aug.2016 www.rfsworld.com

NM-LCF78-E01



## N Male Connector for 7/8" Coaxial Cable, OMNI FIT™ Premium, Straight, O-Ring and 360° compression sealing

OMNI FIT™ high performance connectors are designed for use with both CELLFLEX® (copper) and CELLFLEX® Lite (aluminium) cables. They are designed specifically to provide the highest quality connector-cable interface while simplifying and speeding up connector attachment.

All RFS connectors are fully tested for mechanical and electrical compliance to industry specifications. The N connector meets all technical requirements and covers high frequencies as well as legacy applications. Sealing against outer conductor and jacket by means of o-ring and 360° compression fit.



#### **FEATURES / BENEFITS**

- Ultra high PIM performance i.e. reduced interference leading to high customer satisfaction
- Two-piece design i.e. visual inspection of interlocking leads to improved installation security
- OMNI FIT™ concept i.e. streamlined order management and reduced stock level
- Watertight sealing in mated and unmated condition, i.e. reduced efforts during installation and improved security during operation
- Tri metal alloy plating i.e. extreme resistance against corrosion even under hardest climatic and environmental circumstances
- Multi-thread (Tristart) design i.e. simplified and accelerated tightening process
- RoHS (EU) and CRoHS (China) compliant i.e. can be used on a global basis

### Technical Features

Transmission Line Type	Coaxial Cable
Cable Size	7/8"
Cable Type	Foam Dielectric  Superflexible
Model Series	LCF78-50 Series
Connector Interface	NI .

 Connector Interface
 N

 Connector Type
 OMNI FIT™ PREMIUM Straight

 Sealing Method
 sealing rubber

**Gender** Male

Nominal Impedance	Ohm	50
3rd Order IM Product @ 2x20 Watts	dBc	-158 ; typical -162
Maximum Frequency	GHz	6.0
VSWR, Return Loss	VSWR (dB)	0 < f S 1.0 GHz: 1.02 (40.0) 1.0 < f S 2.2 GHz: 1.03 (37.0) 2.2 < f S 2.7 GHz: 1.03 (36.0) 2.7 < f S 3.8 GHz: 1.07 (30.0) 3.8 < f S 5.0 GHz: 1.11 (26.0) 5.0 < f S 6.0 GHz: 1.15 (23.0)

### MECHANICAL SPECIFICATIONS

**ELECTRICAL SPECIFICATIONS** 

Plating Outer/Inner		Tri metal alloy / Silver
Length	mm (in)	77.6 (3.06)
Outer Diameter	mm (in)	37 (1.46)
Weight	kg (lb)	0.125 (0.28)
Inner Contact Attachment		Spring Finger
Outer Contact Attachment		360° clamping
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#### **ACCESSORIES**

Wrench size front	mm (in)	34
Wrench size rear	mm (in)	34
Trimming Tool		TRIM-LCF78-D01-A
TESTING AND ENVIRONMENTAL		
Waterproof Level		IP68

Water proof Level	11 0

<b>External Document Links</b>	Notes
Installation Instruction	

NM-LCF78-E01 REV: A REV DATE: 31.Aug.2020 www.rfsworld.com

### PRODUCT DATASHEET

### Перечень

Тип разъема	Страница
158EIA-LCF78-062	1
43F-LCF78-C03	3
43F-LCF78-D01	5
43F-LCF78-E0	7
43MH-LCF78-C03	8
43M-LCF78-C03	10
43M-LCF78-D01	12
43M-LCF78-E01	14
43MP-LCF78-C03	15
716F-LCF78-C02	17
716F-LCF78-C03	19
716F-LCF78-D01	21
716F-LCF78-E01	23
716M-LCF78-C02	25
716M-LCF78-C03	27
716M-LCF78-D01	29
716M-LCF78-E01	31
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78EIA-LCF78-062	35
NF-LCF78-C02	37
NF-LCF78-C03	39
NF-LCF78-D01	41
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NM-LCF78-C03	46
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