

Аттенюаторы СВЧ для сетей сотовой связи



Официальный поставщик «Spinner-Group»

<http://www.tt-telecom.ru>

Отдел продаж: market@tt-telecom.ru

КАТАЛОГ

Содержание

- Аттенюаторы с низким уровнем пассивной интермодуляции 890-960 МГц / 1710-1880 МГц / 350-3800 МГц
- Стандартные аттенюаторы 0-4000 МГц / 0-12400 МГц

Absorbing Products

SPINNER loads and attenuators are often used in the installation and calibration of mobile radio communication stations, but also in measurement technology applications in which they excel thanks to their excellent IM properties.



Low PIM loads



Low PIM attenuators



Loads



Attenuators

Loads and Attenuators – Now Even More Flexible

Both for the loads and for the attenuators, SPINNER has developed a new modular system by means of which you are significantly more flexible in choosing your components. The requirements for performance and the connector system are diverse and the new system enables you to easily combine loads and attenuators with the performance and connector system specified by you. Thus, you are able to combine your components freely to meet your requirements and do not have to use oversized components or adapters without the support of which you could not even install the components. The advantages are obvious: cost savings and improved technical values.

The new modular system is available for the 25 W, 50 W, 100 W and 200 W performance versions as well as for 7-16, 4.3-10 and N connector system. Of course, you will be able to choose from connectors and couplers of the connector systems mentioned above. The standard version is available between 0 and 4 GHz. Extended versions are possible up to 6 GHz. Moreover, you can order your versions with an integrated DC block as well as with a measurement report.



Standard Loads



Standard Attenuators

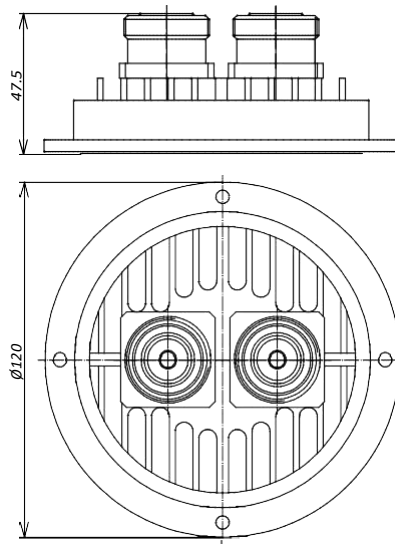
Attenuators <http://www.tt-telecom.ru> Отдел продаж: market@tt-telecom.ru

Low Intermodulation Attenuators

Part Number	BN 745144	BN 745146
Frequency range	890 - 960 MHz	1710 - 1880 MHz
Attenuation	3.0 dB ± 0.5 dB	
Passive intermodulation (IM3) @ 2 x 20 W	≤ -163 dBc; typ. ≤ -165 dBc	
VSWR	≤ 1.2; typ. ≤ 1.15	
Power rating	≤ 50 W	
Connectors	7-16 female	
Temperature range	-5 °C ... +55 °C	
Degree of protection (mated)	IP20	
Weight	~ 0.5 kg	

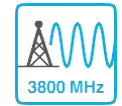
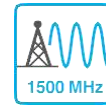


BN 745144 / BN 745146



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Attenuators

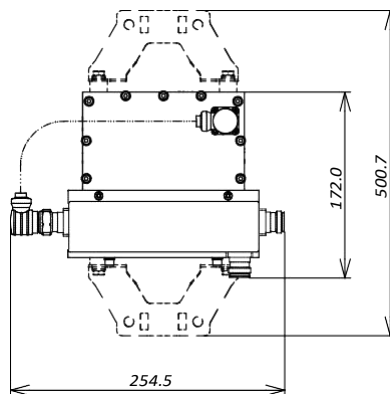
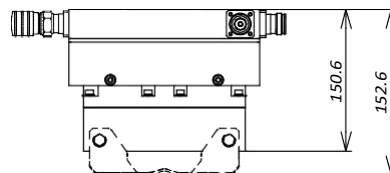


Low Intermodulation Attenuators

Part Number	BN 745401	BN 745402	BN 745403	BN 745404	BN 745405	BN 745406	BN 745407	BN 745408	BN 745409
Frequency range	350 - 3800 MHz								
Attenuation	4.8 dB	6.0 dB	7.0 dB	8.0 dB	10 dB	13 dB	15 dB	20 dB	30 dB
Passive intermodulation (IM3) @ 2 x 20 W	≤ -140 dBc; typ. ≤ -145 dBc @ 350 - 694 MHz ≤ -150 dBc; typ. ≤ -155 dBc @ 694 - 800 MHz ≤ -160 dBc; typ. ≤ -165 dBc @ 800 - 3000 MHz								
VSWR	≤ 1.3								
Power rating	≤ 80 W								
Connectors	4.3-10 female								
Temperature range	-40 °C ... +50 °C								
Degree of protection (mated)	IP 65								
Weight	~ 3.0 kg								
Mounting brackets	BN B07787								

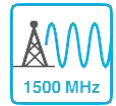


BN 745401



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Attenuators

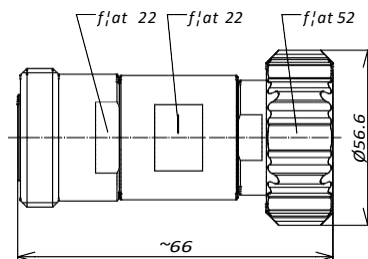


Standard Attenuators

Part Number	BN 534361	BN 534362	BN 534363	BN 534364
Frequency range	0 - 3000 MHz			
Attenuation	3 dB ± 0.2 dB	6 dB ± 0.2 dB	10 dB ± 0.3 dB	20 dB ± 0.5 dB
VSWR	≤ 1.04 @ 0 - 1000 MHz ≤ 1.08 @ 1000 - 2200 MHz ≤ 1.10 @ 2200 - 3000 MHz			
Power rating	≤ 10 W	≤ 6.5 W	≤ 5 W	≤ 5 W
Connectors	7-16 male / 7-16 female			
Temperature range	-40 °C ... +25 °C			
Degree of protection (mated)	IP 65			
Weight	~ 0.2 kg			



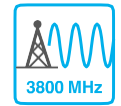
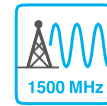
BN 534361



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Attenuators

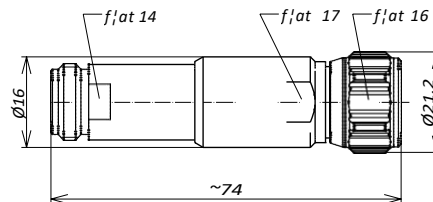


Standard Attenuators

Part Number	BN 528622	BN 528624	BN 528626	BN 528627
Frequency range	0 - 12400 MHz			
Attenuation	3 dB ± 0.3 dB	6 dB ± 0.4 dB	10 dB ± 0.5 dB	20 dB ± 1.0 dB
VSWR	≤ 1.15 @ 0 - 4000 MHz ≤ 1.27 @ 4000 - 8000 MHz ≤ 1.44 @ 8000 - 12400 MHz			
Power rating	≤ 10 W	≤ 6.5 W	≤ 5 W	≤ 5 W
Connectors	N male / N female			
Temperature range	-40 °C ... +25 °C			
Degree of protection (mated)	IP 40			
Weight	~ 0.1 kg			



BN 528622



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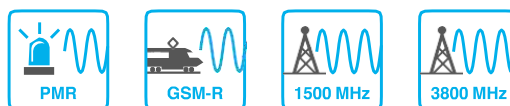
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Attenuators

Standard Attenuators - Modular Construction System for 25 to 200 W Attenuators

The standard attenuators are foreseen for individual configuration. Four power levels from 25 W to 200 W are available. The connectors can be chosen from 7-16, 4.3-10 and N, either male or female. 4.3-10 male versions are available with screw, hand screw and push-pull version.

As special features, the attenuators can be ordered with an extended frequency range up to 6 GHz, with measurement protocol included in the delivery and integrated DC break. The individual configuration can be chosen by the sales article number shown on page 169.



Version	Type 25	Type 50	Type 100	Type 200
Frequency range	0 - 4000 MHz (special feature up to 6000 MHz)			
Frequency range for attenuator with integrated DC break	100 - 4000 MHz (special feature up to 6000 MHz)			
VSWR	≤ 1.06 @ 0 – 1000 MHz ≤ 1.14 @ 1000 – 2000 MHz ≤ 1.20 @ 2000 – 3000 MHz ≤ 1.30 @ 3000 – 4000 MHz (≤ 1.40 @ 4000 – 6000 MHz)			
VSWR for attenuators with integrated DC break	≤ 1.70 @ 100 – 330 MHz ≤ 1.25 @ 330 – 694 MHz ≤ 1.20 @ 694 – 2690 MHz ≤ 1.30 @ 2690 – 3800 MHz (≤ 1.40 @ 5000 – 6000 MHz)			
Temperature range	-40 °C ... +40 °C			
Degree of protection	IP 50			
Weight	~ 0.6 kg	~ 0.9 kg	~ 1.1 kg	~ 2.7 kg

Max. Input Power in Both Directions

Attenuation	3 dB	6 dB	10 dB	20 dB	30 dB	40 dB
Type 25	≤ 50 W	≤ 30 W	≤ 25 W	≤ 25 W	≤ 25 W	≤ 25 W
Type 50	≤ 100 W	≤ 65 W	≤ 50 W	≤ 50 W	≤ 50 W	≤ 50 W
Type 100	≤ 150 W	≤ 120 W	≤ 100 W	≤ 100 W	≤ 100 W	≤ 100 W
Type 200	≤ 300 W	≤ 200 W	≤ 200 W	≤ 200 W	≤ 200 W	≤ 200 W



Attenuators

Standard Attenuators - Sales Article Numbers

Please use sales article numbers for inquiries and orders.

These are self explaining and enable you to specify a product without knowing its part number.

Attenuator	Power		Connector 1	Connector 2		Attenuation	Extra Features	
A	X	-	Z	X	-	Z	-X	
25 W	25	Any combination of connectors below is possible						Leave blank if N/A
50 W	50							
100 W	100							
200 W	200							
7-16 male								
7-16 female								
4.3-10 male; screw								
4.3-10 male; hand screw								
4.3-10 male; push-pull								
4.3-10 female								
N male								
N female								
3 dB							3	
6 dB							6	
10 dB							10	
20 dB							20	
30 dB							30	
40 dB							40	
Measurement protocol (acc. to EN 10204, incl. VSWR gradient)								P
Extended frequency range								E
DC break integrated in one connector, available for NM, other Interfaces on request								D
Extended frequency range + measurement protocol								EP
DC break + measurement protocol								DP

Example of sales article numbers:

A25-43MH43F-10: Attenuator 25 W with 4.3-10 male hand screw type / 4.3-10 female connectors and 10 dB attenuation.