

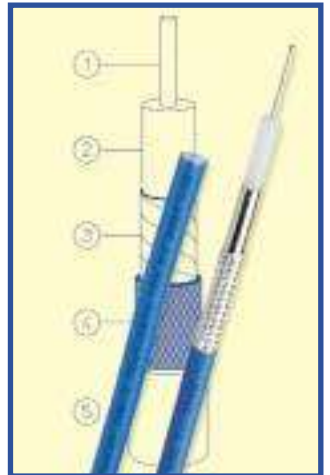
By replacing the solid copper tube with a wrapped silver-plated copper foil and a braid, a combination of a semi-rigid coaxial cable and one with a flexible braid is achieved.

The Flexible Alternative to Semi-Rigid Coaxial Cables

Engineering data

Habia ref	① Inner conductor material OD (mm)	② Dielectric PTFE OD (mm)	③ ④ Outer Conductor OD (mm)/[in]	⑤ Multibend FJ with FEP Outer Jacket OD (mm)	⑥ Multibend HFJ with Zero-Halogen Outer Jacket OD (mm)	Variant of
Multibend 401	SPC 1,6	5,3	6,4 [0,250]	7,2	7,6	M17/129-00001 M17/129-RG401
Multibend 402	SCW 0,92	3,0	3,6 [0,141]	4,1	4,6	M17/130-00001 M17/130-RG402
Multibend 405	SCW 0,51	1,7	2,2 [0,086]	2,6	3,2	M17/133-00001 M17/133-RG405

Note: All figures are nominal unless otherwise specified
SPC = Silver Plated Copper, SCW = Silver Plated Copper Weld.



Additional information

- Excellent electrical properties
- Good attenuation
- Outstanding flexibility
- Simple mounting
- Utilise standard cut and strip machinery
- Up to 20 GHz - high operating frequency
- Excellent against cross-talk
- Usage of standard semi-rigid connectors
- Excellent shielding properties

Ease of use

Multibend is highly flexible, at the same time maintaining a level of performance almost the same as a traditional semi-rigid coaxial, without any of the associated problems.

Handling is very similar to standard coaxes.

Eliminates many factors associated with pre-made assemblies.

Cost effective

Delivered on standard spools in long lengths, giving less scrap than semi-rigids.

Offers significant cost advantages over semi-rigid coax - with minimal performance penalty

Utilise standard forming tools.

No additional assembly costs.

No special packaging or shipping requirements.

Custom design

Jacket options include fluoropolymer or halogen-free, cross-linked or flame-retardent.

Standard jacket colour is blue.

All other coaxial types can be manufactured using the same process (ie Multibend 179)

All types can be supplied with non-magnetic (SPC) conductor, if required.

Alternatively a completely halogen-free option is available for all types.

Please ask for details.

Connectors

Standard semi-rigid connectors (solder or crimp) can be used on all types above.

Typical Applications

- Cabinet systems
- Antenna applications
- Combiners
- Satellite equipment
- Medical equipment
- Military equipment

Custom Design

A completely halogen-free version is available for all types

Note: All figures are nominal unless otherwise specified

Internet . . . www.habia.com
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Multibend®

The Flexible Alternative
to Semi-Rigid Coaxial Cables

Type:
Multibend 401

Engineering data

Cable design

Centre conductor silver-plated copper wire, non magnetic
Dielectric solid extruded PTFE
Outer conductor spiral strip of silver plated copper
..... & round wire silver plated copper braid, coverage 100%
Jacket material FEP, Flame-retardent, Blue

Electrical data

Impedance 50 Ohms
Capacitance 94 pF/m
Velocity of signal propagation 70%
Signal delay 4,8 ns/m
Working voltage, maximum 3000V RMS
Attenuation, nominal see graph right
Power, nominal see graph right
Suitable for frequencies up to 20 GHz
Shielding effectiveness typically <-100 dB/m

General data

Flammability, passes EC 60 332-3
Minimum bend radius
single bend 40mm
multiple bends 80mm

Connectors

Connector. as semi-rigid M17/129-RG401

Additional information

Multibend 401 FJ (Standard):

Jacket FEP, Blue
OD 7,2mm
Weight, nominal 130kg/km
Operating temperature -55 to +165°C

Multibend 401 HFJ

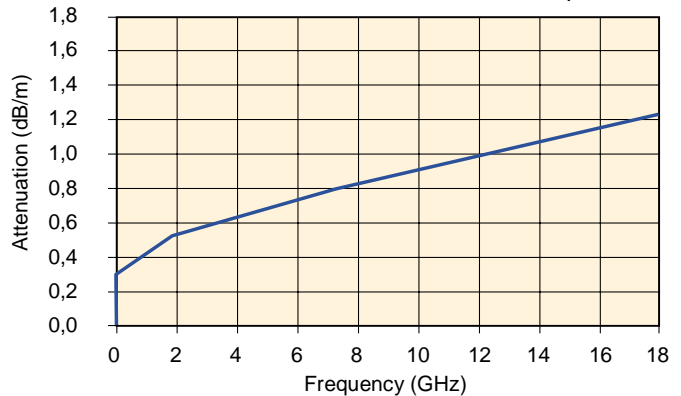
Jacket halogen-free, flame-retardent, Blue
OD 7,6mm
Weight, nominal 130kg/km
Operating temperature -30 to +80°C

Delivered on standard spools in long lengths, giving less waste than semi-rigids.

Note: All figures are nominal unless otherwise specified

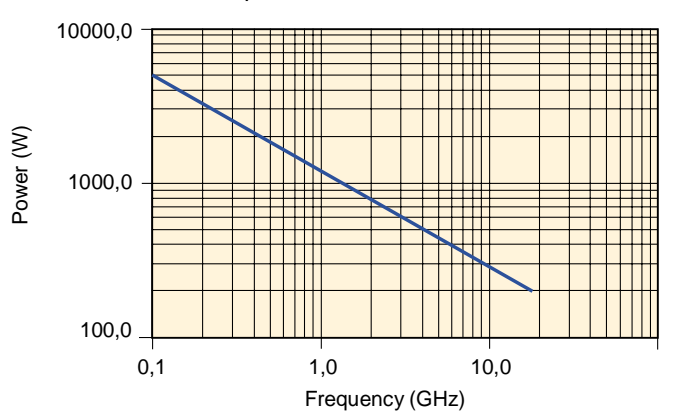
Cable Attenuation

Nominal values @ +25°C ambient temperature



Average Power

Ambient temperature 40°C at sea level & VSWR1.0



Custom design

All MIL types of coaxial cables can be manufactured using the Multibend method or process.

We can also manufacture a completely halogen-free version.

Different types of outer jacket are also available.
Please ask for details.

A completely halogen-free version is available for all types.

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www.tt-telecom.ru

Type: Multibend 402

The Flexible Alternative
to Semi-Rigid Coaxial Cables

Engineering data

Cable design

Centre conductor silver-plated copper-clad steel wire
Dielectric solid extruded PTFE
Outer conductor spiral strip of silver plated copper
..... & round wire silver plated copper braid, coverage 100%
Jacket material FEP, Flame-retardent, Blue

Electrical data

Impedance 50 Ohms
Capacitance 94 pF/m
Velocity of signal propagation 70%
Signal delay 4,8 ns/m
Working voltage, maximum 1900V RMS
Attenuation, nominal see graph right
Power, nominal see graph right
Suitable for frequencies up to 20 GHz
Shielding effectiveness typically <-100 dB/m

General data

Flammability, passes EC 60 332-3
Minimum bend radius
single bend 10mm
multiple bends 40mm

Connectors

Connector. as semi-rigid M17/130-RG402

Additional information

Multibend 402 FJ (Standard):

Jacket FEP, Blue
OD 4,1mm
Weight, nominal 43kg/km
Operating temperature -55 to +165°C

Multibend 402 HFJ

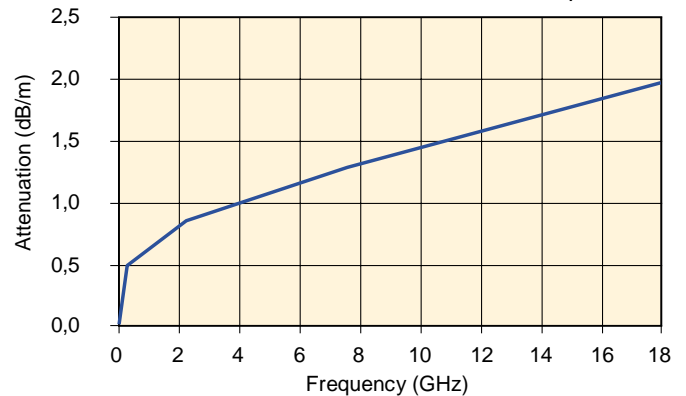
Jacket halogen-free, flame-retardent, Blue
OD 4,6mm
Weight, nominal 46kg/km
Operating temperature -30 to +80°C

Delivered on standard spools in long lengths, giving less waste than semi-rigids.

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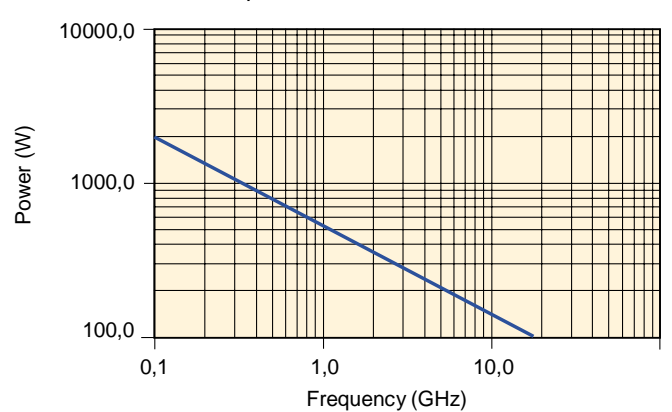
Cable Attenuation

Nominal values @ +25°C ambient temperature



Average Power

Ambient temperature 40°C at sea level & VSWR1.0



Custom design

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Type:
Multibend 405

Engineering data

Cable design

Centre conductor silver-plated copper-clad steel wire
Dielectric solid extruded PTFE
Outer conductor spiral strip of silver plated copper
..... & round wire silver plated copper braid, coverage 100%
Jacket material FEP, Flame-retardent, Blue

Electrical data

Impedance 50 Ohms
Capacitance 94 pF/m
Velocity of signal propagation 70%
Signal delay 4,8 ns/m
Working voltage, maximum 1500V RMS
Attenuation, nominal see graph right
Power, nominal see graph right
Suitable for frequencies up to 20 GHz
Shielding effectiveness typically <-100 dB/m

General data

Flammability, passes EC 60 332-3
Minimum bend radius
single bend 6mm
multiple bends 25mm

Connectors

Connector. as semi-rigid M17/133-RG405

Additional information

Multibend 405 FJ (Standard):

Jacket FEP, Blue
OD 2,6mm
Weight, nominal 19kg/km
Operating temperature -55 to +165°C

Multibend 405 HFJ

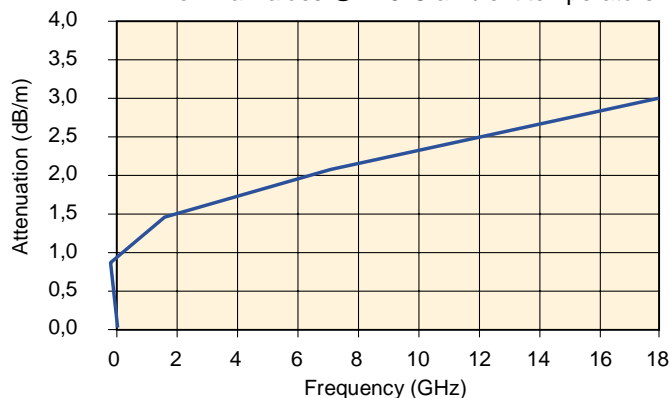
Jacket halogen-free, flame-retardent, Blue
OD 3,2mm
Weight, nominal 21kg/km
Operating temperature -30 to +80°C

Delivered on standard spools in long lengths, giving less waste than semi-rigids.

Note: All figures are nominal unless otherwise specified

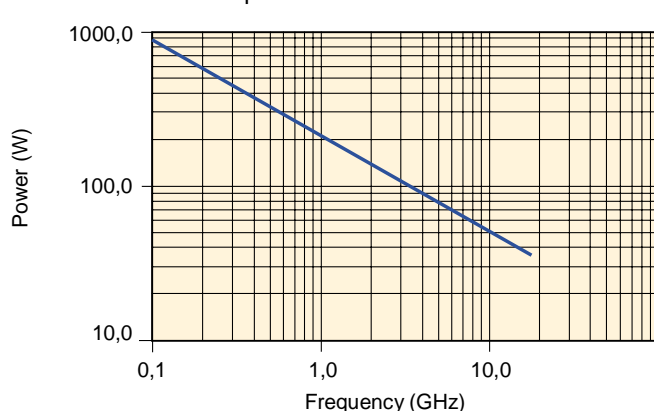
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Nominal values @ +25°C ambient temperature



Average Power

Ambient temperature 40°C at sea level & VSWR1.0



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