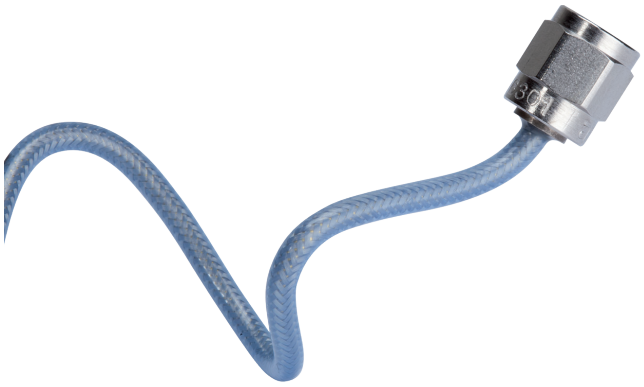
Minibend

High performance/high pull strength microwave coaxial cable assembly

Product description

Minibend is a truly flexible coaxial cable assembly which is designed for use in low profile, internal, point-to-point interconnections between RF modules within communications systems. Minibend replaces 0.086 inch custom semi-rigid cables with standard flexible cables, eliminating the need for predefined custom lengths and bend configurations. Minibend provides you with a preassembled and tested high performance, cost-effective alternative in a variety of standard lengths and connector configurations.



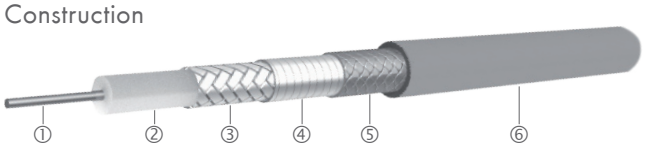
Product features

- Impedance 50 Ω
- Applicable up to 65 GHz
- Direct replacement for 0.086 inch semi-rigid cables
- Stock delivery on standard lengths

Recommended connectors

Minibend	SMA, SSMA, SK, SMP, 2.4 mm, 1.85 mm
	Other connectors available on request

Construction



Cable	Inner conductor ①	Dielectric ②	Outer conductor ③	Barrier ④	Outer braid ⑤	Jacket ⑥	Outer diameter
							mm
32081	CuAg wire	PTFE	CuAg flat wire braid	aluminium/ polyimide tape	stainless steel	FEP	2.5
32081S	StCuAg wire	PTFE	CuAg flat wire braid	aluminium/ polyimide tape	stainless steel	FEP	2.5

Technical data

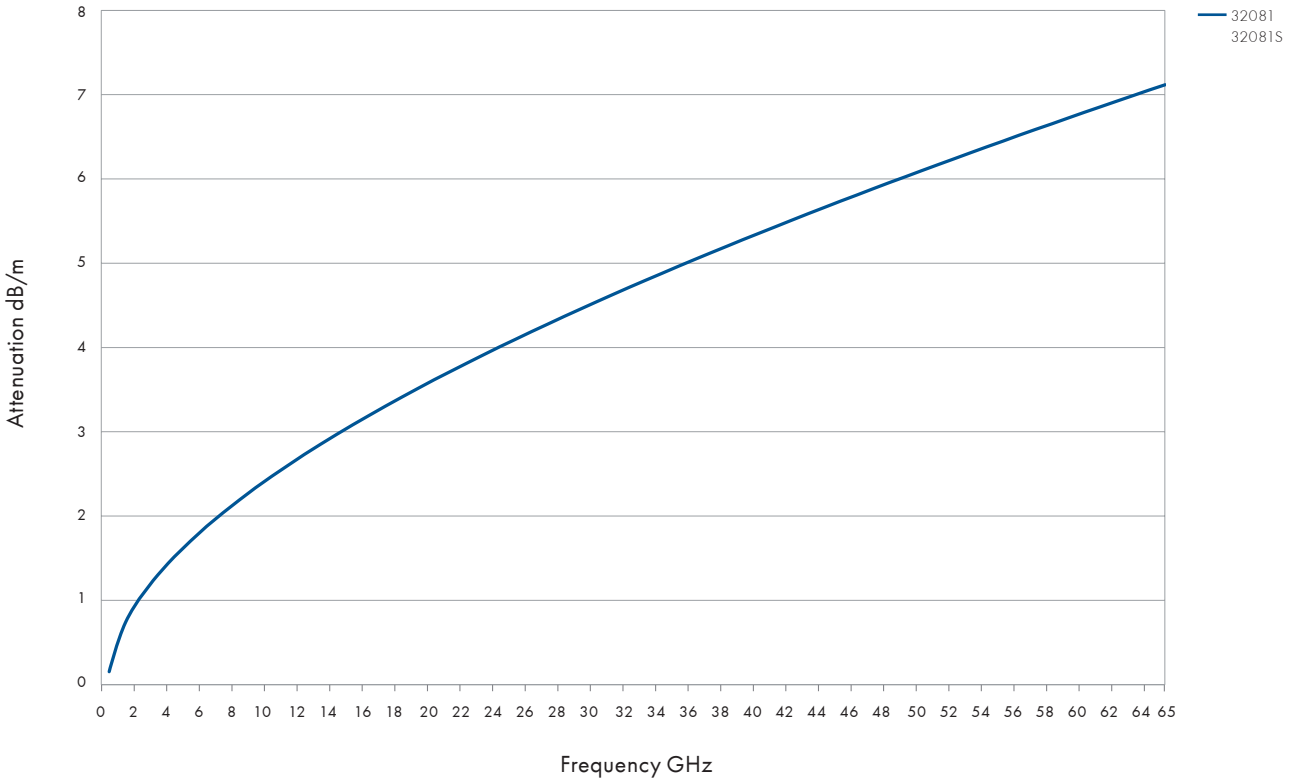
Cable	Operating frequency	Velocity	Weight	Min. bending radius for ± 180°	Temperature range
	GHz	%	g /m	mm	° C
32081/32081S	65	70.3	14.9	5.08	–55 to +200

Assembly	Minibend	Minibend A	Minibend E	Minibend K	Minibend KS	Minibend KV	Minibend QG
Connector A	SMA (m)	SSMA (m)	SMA (m), fully captivated	SK (m)	SK (m)	2.4 mm (m)/ 1.85 mm (m)	2.4 mm (m) gold plated BeCu
Connector B	SMA (m)	SSMA (m)	SMA (m), fully captivated	SK (m)	SMP (f)	SK (m)	2.4 mm (m) gold plated BeCu

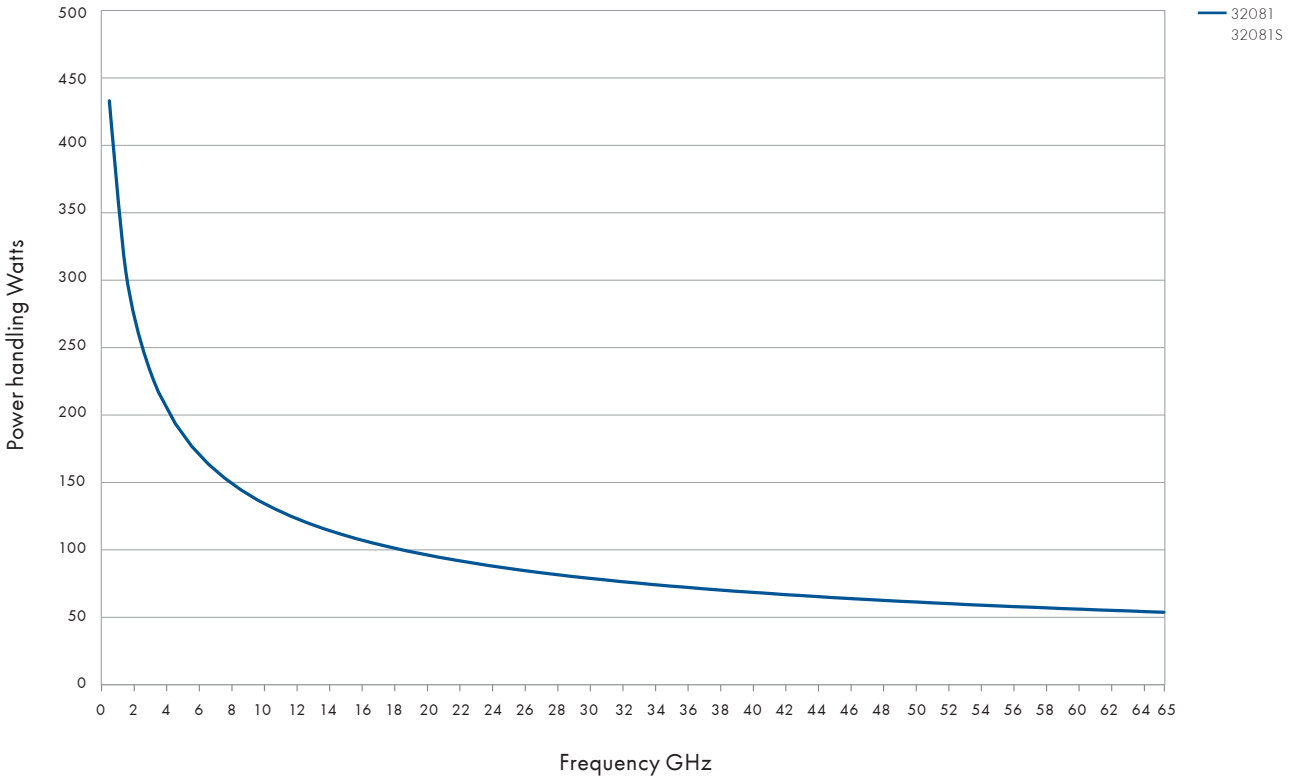
Assembly	Minibend S	Minibend 2S	Minibend V	Minibend VG	Minibend WR
Connector A	SMA (m)	SMP (f)	2.4 mm/1.85 mm (m)	1.85 mm (m) gold plated BeCu	SMA (m)
Connector B	SMP (f)	SMP (f)	2.4 mm/1.85 mm (m)	1.85 mm (m) gold plated BeCu	SMA (m)

Minibend

Attenuation (nominal values at +25 °C ambient temperature)



Power handling (maximum values at 25 °C ambient temperature and sea level)



Minibend

Minibend is a flexible coaxial cable assembly which is designed for use in low profile, internal point-to-point interconnections between RF modules within communications systems. Minibend replaces 0.086 inch custom semi-rigid cables with standard flexible cables eliminating the need for predefined custom lengths and bend configurations. Minibend provides you with a preassembled and tested high performance, cost-effective alternative in a variety of standard lengths.

- Frequency range up to 24 GHz
- Precision stainless steel SMA plug connectors
- Ruggedised version available "R"



Length	Minibend	Item no.	Minibend R	Item no.
mm				
63.5	minibend-2.5	80337902	minibend R-2.5	80337536
76.2	minibend-3	80337926	minibend R-3	80337569
88.9	minibend-3.5	80337929	minibend R-3.5	80337570
101.6	minibend-4	80337942	minibend R-4	80337585
114.3	minibend-4.5	80337947	minibend R-4.5	80337587
127	minibend-5	80337959	minibend R-5	80337606
139.7	minibend-5.5	80337960	minibend R-5.5	80337607
152.4	minibend-6	80337969	minibend R-6	80337616
165.1	minibend-6.5	80337972	minibend R-6.5	80337617
177.8	minibend-7	80337981	minibend R-7	80337625
203.2	minibend-8	80337990	minibend R-8	80337631
228.6	minibend-9	80337999	minibend R-9	80337637
254	minibend-10	80337853	minibend R-10	80337509
279.4	minibend-11	80337859	minibend R-11	80337512
304.8	minibend-12	80337864	minibend R-12	80337515
330.2	minibend-13	80337873	minibend R-13	80337520
355.6	minibend-14	80337877	minibend R-14	80337522
381	minibend-15	80337881	minibend R-15	80337525
406.4	minibend-16	80337886	minibend R-16	80337526

Minibend A

Minibend A has all the benefits of the original Minibend but with precision stainless steel SSMA connectors on each end. Minibend A is available in a standard 26.5 GHz max. frequency or an optional 40 GHz max. configuration. Minibend A flexible coaxial cable assemblies are cost-effective replacements for .086 inch semi-rigid cables in point-to-point interconnections between RF modules. Minibend A eliminates the need for custom pre-defined lengths and bend configurations.

- Frequency range up to 40 GHz
- Precision stainless steel SSMA plug connectors
- Ruggedised version available "R"



Length	Minibend A	Item no.
mm		
63.5	minibend A-2.5	80336959
76.2	minibend A-3	80336961
88.9	minibend A-3.5	80336963
101.6	minibend A-4	80336965
114.3	minibend A-4.5	80366167
127	minibend A-5	80336969
139.7	minibend A-5.5	80370925
152.4	minibend A-6	80336971
165.1	minibend A-6.5	80370926
177.8	minibend A-7	80336973
203.2	minibend A-8	80336974
228.6	minibend A-9	80365469
254	minibend A-10	80336954
279.4	minibend A-11	80336955
304.8	minibend A-12	80336956
330.2	minibend A-13	80365470
355.6	minibend A-14	80336957
381	minibend A-15	80370927
406.4	minibend A-16	80336958

Minibend E

Minibend E is a fully captivated (contact, dielectric and body), ruggedised version of the original Minibend that is suitable for use in spacecraft applications, severe environments and high density packages. The Minibend E contact will not shift more than 0.005 inch when subjected to 10 lbs push force (cabled) or 5 lbs push force uncabled. All materials used in Minibend E assemblies meet or exceed NASA TML and CVCM requirements for use in spacecraft applications.

- Frequency range up to 18 GHz
- Precision stainless steel SMA plug connectors
- Automatically ruggedised by design

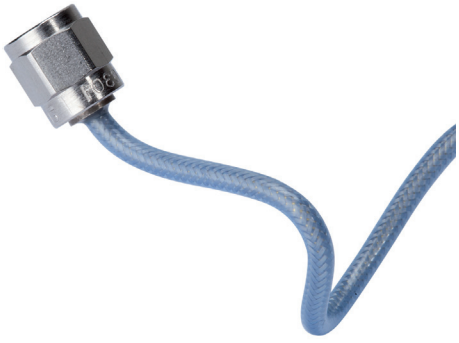


Length mm	Minibend E	Item no.
63.5	minibend E-2.5	80369350
76.2	minibend E-3	80337037
88.9	minibend E-3.5	80337040
101.6	minibend E-4	80337046
114.3	minibend E-4.5	80337047
127	minibend E-5	80337051
139.7	minibend E-5.5	80337052
152.4	minibend E-6	80337056
165.1	minibend E-6.5	80337057
177.8	minibend E-7	80337061
203.2	minibend E-8	80337063
228.6	minibend E-9	80370929
254	minibend E-10	80337020
279.4	minibend E-11	80337023
304.8	minibend E-12	80337025
330.2	minibend E-13	80366191
355.6	minibend E-14	80337028
381	minibend E-15	80337030
406.4	minibend E-16	80363369

Minibend K

Minibend K is a 40 GHz version of the Minibend flexible coaxial cable assembly which is designed for use in low profile, internal point-to-point interconnections between RF modules within communications systems. Minibend K replaces small custom semi-rigid cables with standard flexible cables, eliminating the need for predefined custom lengths and bend configurations. Minibend K provides you with a preassembled and tested high performance, cost-effective alternative in a variety of standard lengths.

- Frequency range up to 40 GHz
- Precision SK Minibend plug connectors
- Ruggedised version available "R"



Length mm	Minibend K	Item no.	Minibend KR	Item no.
63.5	minibend K-2.5	80337108	minibend KR-2.5	80337144
76.2	minibend K-3	80337117	minibend KR-3	80337149
88.9	minibend K-3.5	80337119	minibend KR-3.5	80366984
101.6	minibend K-4	80337121	minibend KR-4	80337152
114.3	minibend K-4.5	80337122	minibend KR-4.5	80362898
127	minibend K-5	80362456	minibend KR-5	80337154
139.7	minibend K-5.5	80337128	minibend KR-5.5	80370656
152.4	minibend K-6	80337129	minibend KR-6	80337156
165.1	minibend K-6.5	80365648	minibend KR-6.5	80370930
177.8	minibend K-7	80337130	minibend KR-7	80337157
203.2	minibend K-8	80337132	minibend KR-8	80337160
228.6	minibend K-9	80337134	minibend KR-9	80337161
254	minibend K-10	80337097	minibend KR-10	80337138
279.4	minibend K-11	80337098	minibend KR-11	80363429
304.8	minibend K-12	80337099	minibend KR-12	80337139
330.2	minibend K-13	80337100	minibend KR-13	80369274
355.6	minibend K-14	80337101	minibend KR-14	80337140
381	minibend K-15	80337102	minibend KR-15	80365529
406.4	minibend K-16	80337103	minibend KR-16	80337141

Abbreviations see page 180

Minibend KS

Minibend KS is the 40 GHz version of the original Minibend with a SK plug connector on one end and an SMP female connector that is DSCC and MIL-STD-348 compliant on the other. Minibend KS replaces custom length, predefined bend configuration 0.086 inch semi-rigid cables with standard, COTS, flexible coax cables for use as internal, point-to-point interconnections between RF modules.

- Frequency range up to 40 GHz
- Precision SK Minibend plug connector
- Precision SMP female connector mateable with Corning Gilbert GPO®
- Ruggedised version available "R"



Length	Minibend KS	Item no.
mm		
63.5	minibend KS-2.5	80365556
76.2	minibend KS-3	80367753
88.9	minibend KS-3.5	80374003
101.6	minibend KS-4	80368776
114.3	minibend KS-4.5	80374004
127	minibend KS-5	80337165
139.7	minibend KS-5.5	80374005
152.4	minibend KS-6	80337166
165.1	minibend KS-6.5	80374006
177.8	minibend KS-7	80374007
203.2	minibend KS-8	80362863
228.6	minibend KS-9	80365458
254	minibend KS-10	80362038
279.4	minibend KS-11	80374008
304.8	minibend KS-12	80337162
330.2	minibend KS-13	80374009
355.6	minibend KS-14	80374010
381	minibend KS-15	80367162
406.4	minibend KS-16	80363850

Minibend KV

Minibend KV is a 40 GHz version of the originial Minibend with a SK plug connector on one end and a 2.4 mm/1.85 mm compatible plug connector on the other. Minibend KV replaces custom lengths, predefined bend configuration 0.086 semi-rigid cable assemblies for use as internal, point-to-point interconnections between RF modules and in high bandwith switching systems.

- Frequency range up to 40 GHz
- Precision SK Minibend plug connector
- Precision 2.4 mm/1.85 mm compatible plug connector
- Ruggedised version available "R"



Length	Minibend KV	Item no.
mm		
63.5	minibend KV-2.5	80337175
76.2	minibend KV-3	80337177
88.9	minibend KV-3.5	80360466
101.6	minibend KV-4	80337180
114.3	minibend KV-4.5	80337181
127	minibend KV-5	80337182
139.7	minibend KV-5.5	80337183
152.4	minibend KV-6	80337184
165.1	minibend KV-6.5	80370931
177.8	minibend KV-7	80337185
203.2	minibend KV-8	80337187
228.6	minibend KV-9	80337188
254	minibend KV-10	80337169
279.4	minibend KV-11	80370094
304.8	minibend KV-12	80337170
330.2	minibend KV-13	80370932
355.6	minibend KV-14	80337171
381	minibend KV-15	80370933
406.4	minibend KV-16	80337172

Minibend QG

Minibend QG is a 50 GHz version of the original Minibend with a 2.4 mm plug connector on each end that contains a gold plated BeCu contact for applications that require repeated mates/demates of the interface. This flexible coaxial cable assembly is designed for use in low profile, internal point-to-point interconnections between RF modules within communications systems. Minibend QG replaces small custom semi-rigid cables with standard flexible cables, eliminating the need for predefined custom lengths and bend configurations. Minibend QG provides you with a preassembled and tested high performance, cost-effective alternative in a variety of standard lengths.

- Frequency range up to 50 GHz
- Precision 2.4 mm compatible plug connectors
- Automatically ruggedised by design



Length	Minibend QG	Item no.
mm		
63.5	minibend QG-2.5	80370934
76.2	minibend QG-3	80361835
88.9	minibend QG-3.5	80370203
101.6	minibend QG-4	80337502
114.3	minibend QG-4.5	80367704
127	minibend QG-5	80365999
139.7	minibend QG-5.5	80370935
152.4	minibend QG-6	80362867
165.1	minibend QG-6.5	80366000
177.8	minibend QG-7	80371525
203.2	minibend QG-8	80337503
228.6	minibend QG-9	80371780
254	minibend QG-10	80363167
279.4	minibend QG-11	80367645
304.8	minibend QG-12	80362486
330.2	minibend QG-13	80370936
355.6	minibend QG-14	80370937
381	minibend QG-15	80370938
406.4	minibend QG-16	80370939

Minibend S

Minibend S is a special version of the original Minibend that provides all the benefits of the original Minibend but with a precision DSCC and MIL-STD-348 compliant SMP female connector on one end and an SMA plug connector on the other. Minibend S replaces custom length, predefined bend configuration cable for use as internal, point-to-point interconnections between RF modules within communications and switching systems.

- Frequency range up to 24 GHz
- Precision stainless steel SMA plug connectors
- Precision SMP female connector mateable with Corning Gilbert GPO®
- Ruggedised version available "R"



Length	Minibend S	Item no.	Minibend SR	Item no.
mm				
63.5	minibend S-2.5	80337655	minibend SR-2.5	80337687
76.2	minibend S-3	80337657	minibend SR-3	80337692
88.9	minibend S-3.5	80370940	minibend SR-3.5	80337693
101.6	minibend S-4	80337658	minibend SR-4	80337698
114.3	minibend S-4.5	80337660	minibend SR-4.5	80337699
127	minibend S-5	80337661	minibend SR-5	80337704
139.7	minibend S-5.5	80337662	minibend SR-5.5	80365201
152.4	minibend S-6	80337663	minibend SR-6	80337707
165.1	minibend S-6.5	80367381	minibend SR-6.5	80370944
177.8	minibend S-7	80337665	minibend SR-7	80337710
203.2	minibend S-8	80337666	minibend SR-8	80337712
228.6	minibend S-9	80337670	minibend SR-9	80362779
254	minibend S-10	80337641	minibend SR-10	80337678
279.4	minibend S-11	80337642	minibend SR-11	80337680
304.8	minibend S-12	80337644	minibend SR-12	80337681
330.2	minibend S-13	80365405	minibend SR-13	80370945
355.6	minibend S-14	80337646	minibend SR-14	80337682
381	minibend S-15	80337647	minibend SR-15	80370946
406.4	minibend S-16	80337649	minibend SR-16	80337683

Abbreviations see page 180

Minibend 2S

Minibend 2S is the SMP version of the original Minibend that provides all the benefits of the original Minibend but with precision DSCC and MIL-STD-348 compliant SMP female connections on each end. Minibend flexible coaxial cable assemblies are designed for use in low profile, internal point-to-point interconnections between RF modules. Minibend 2S is a cost-effective replacement for 0.086 inch semi-rigid cable and eliminates the need for predefined custom lengths and bend configurations.

- Frequency range up to 40 GHz
- Precision SMP female connector mateable with Corning Gilbert GPO®
- Ruggedised version available "R"



Length	Minibend S	Item no.	Minibend SR	Item no.
mm				
63.5	minibend 2S-2.5	80336924	minibend 2SR-2.5	80362615
76.2	minibend 2S-3	80336925	minibend 2SR-3	80369626
88.9	minibend 2S-3.5	80336926	minibend 2SR-3.5	80364002
101.6	minibend 2S-4	80336927	minibend 2SR-4	80369628
114.3	minibend 2S-4.5	80370941	minibend 2SR-4.5	80365267
127	minibend 2S-5	80336928	minibend 2SR-5	80336948
139.7	minibend 2S-5.5	80336929	minibend 2SR-5.5	80370947
152.4	minibend 2S-6	80336931	minibend 2SR-6	80336949
165.1	minibend 2S-6.5	80336932	minibend 2SR-6.5	80370948
177.8	minibend 2S-7	80336934	minibend 2SR-7	80369627
203.2	minibend 2S-8	80336937	minibend 2SR-8	80365390
228.6	minibend 2S-9	80336938	minibend 2SR-9	80336951
254	minibend 2S-10	80336918	minibend 2SR-10	80363144
279.4	minibend 2S-11	80336919	minibend 2SR-11	80370949
304.8	minibend 2S-12	80336920	minibend 2SR-12	80360902
330.2	minibend 2S-13	80370942	minibend 2SR-13	80370950
355.6	minibend 2S-14	80370943	minibend 2SR-14	80370951
381	minibend 2S-15	80365859	minibend 2SR-15	80365860
406.4	minibend 2S-16	80336921	minibend 2SR-16	80363112

Minibend V

Minibend V is the millimeter wave version of the original Minibend, designed for use in high-speed (40 GB/sec.), low dispersion applications. Minibend V has a HUBER+SUHNER designed plug connector that mates with standard 1.85 mm and 2.4 mm connections.

- Frequency range up to 65 GHz
- Precision 2.4 mm/1.85 mm compatible plug connectors
- Automatically ruggedised by design



Length	Minibend V	Item no.
mm		
63.5	minibend V-2.5	80337735
76.2	minibend V-3	80337738
88.9	minibend V-3.5	80337740
101.6	minibend V-4	80337743
114.3	minibend V-4.5	80337745
127	minibend V-5	80337748
139.7	minibend V-5.5	80337750
152.4	minibend V-6	80337753
165.1	minibend V-6.5	80363214
177.8	minibend V-7	80337756
203.2	minibend V-8	80337760
228.6	minibend V-9	80337763
254	minibend V-10	80337721
279.4	minibend V-11	80337722
304.8	minibend V-12	80337723
330.2	minibend V-13	80370952
355.6	minibend V-14	80337727
381	minibend V-15	80363018
406.4	minibend V-16	80337729

Minibend VG

Minibend VG is an enhanced version of the Minibend V with a 1.85 mm plug connector that contains a gold plated BeCu contact for applications that require repeated mates/demates of the interface. The Minibend VG will tolerate up to 500 mates/demates without applicable degradation. Minibend VG is designed for use in high bandwidth and high-speed (40 GB/sec) applications.

- Frequency range up to 65 GHz
- Precision 1.85 mm compatible plug connectors
- Automatically ruggedised by design



Length	Minibend V	Item no.
mm		
63.5	minibend V-2.5	80337735
76.2	minibend V-3	80337738
88.9	minibend V-3.5	80337740
101.6	minibend V-4	80337743
114.3	minibend V-4.5	80337745
127	minibend V-5	80337748
139.7	minibend V-5.5	80337750
152.4	minibend V-6	80337753
165.1	minibend V-6.5	80363214
177.8	minibend V-7	80337756
203.2	minibend V-8	80337760
228.6	minibend V-9	80337763
254	minibend V-10	80337721
279.4	minibend V-11	80337722
304.8	minibend V-12	80337723
330.2	minibend V-13	80370952
355.6	minibend V-14	80337727
381	minibend V-15	80363018
406.4	minibend V-16	80337729

Minibend WR

Minibend WR is the "all weather" version of the Minibend family environments with high humidity and moisture. Minibend WR meets the moisture resistance requirements of MIL-STD-202, method 106. It is designed for use in low profile, internal or external, point-to-point interconnections between RF modules within communications systems. Minibend WR provides you with a preassembled and tested high performance, cost-effective alternative in a variety of standard lengths.

- Frequency range up to 26.5 GHz
- Precision stainless steel SMA plug connectors
- Automatically ruggedised and weatherproof by design



Length	Minibend WR	Item no.
mm		
63.5	minibend WR-2.5	80365802
76.2	minibend WR-3	80337821
88.9	minibend WR-3.5	80337822
101.6	minibend WR-4	80337824
114.3	minibend WR-4.5	80370956
127	minibend WR-5	80337826
139.7	minibend WR-5.5	80363605
152.4	minibend WR-6	80337827
165.1	minibend WR-6.5	80370957
177.8	minibend WR-7	80360521
203.2	minibend WR-8	80337830
228.6	minibend WR-9	80337832
254	minibend WR-10	80360440
279.4	minibend WR-11	80363606
304.8	minibend WR-12	80337814
330.2	minibend WR-13	80337815
355.6	minibend WR-14	80360441
381	minibend WR-15	80363222
406.4	minibend WR-16	80367832

Abbreviations see page 180