

Rosenberger® RFlex® Cables

Performance and Value for Your System and Test Applications

ROSENBERGER NORTH AMERICA



Rosenberger RFlex® Cables



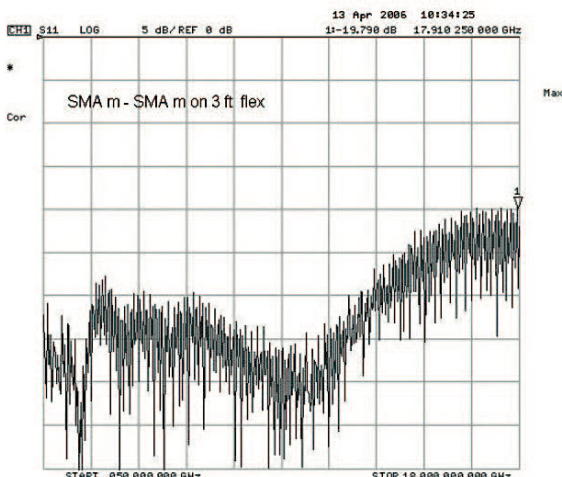
Features and Benefits

- High-performance, low cost microwave interconnects.
- Excellent performance over a broad frequency range: -20dB return loss (typ.) at DC to 18 GHz (SMA.m-SMA.m)
- Rosenberger's superior shielded cable is cost effective and allows relative shielding of -100 dB (min)
- RoHS compliant.
- Rosenberger connectors feature gold-plated center contacts, passivated stainless steel coupling nuts, and PTFE dielectric.
- Unique over-molded strain relief is exceptionally rugged and durable.
- Temperature range: -55°C to +125°C
- Rosenberger RTK Flex 402 cable provides maximum flexibility.

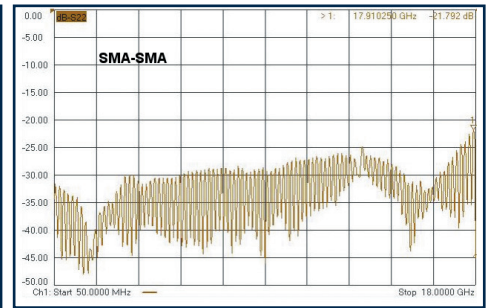
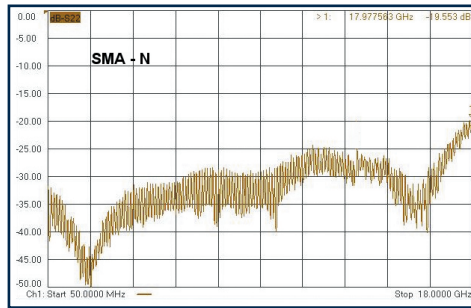
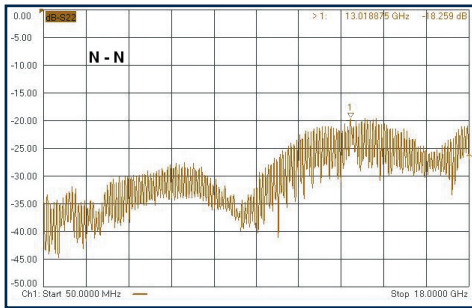
	OAL in FT.	Part # RoHS Compliant	IL (dB) Typ NOTE 1	RL(dB) Typ NOTE 2
SMAm-SMAm	1.0	72W-32S1-32S1-00305	0.6	28
	1.5	72W-32S1-32S1-00457	0.8	28
	2.0	72W-32S1-32S1-00610	1.0	28
	3.0	72W-32S1-32S1-00915	1.5	28
	4.0	72W-32S1-32S1-01220	1.7	28
	6.0	72W-32S1-32S1-01830	3.0	28
Nm-SMAm	2.0	72W-32S1-53S1-00610	1.0	26
	3.0	72W-32S1-53S1-00915	1.5	26
	4.0	72W-32S1-53S1-01220	1.7	26
	6.0	72W-32S1-53S1-01830	3.0	26
	15	72W-32S1-53S1-04570	7.3	26
Nm-Nm	2.0	72W-53S1-53S1-00610	1.0	26
	3.0	72W-53S1-53S1-00915	1.5	26
	6.0	72W-53S1-53S1-01830	3.0	26
	15	72W-53S1-53S1-04750	7.3	26
	20	72W-53S1-53S1-06100	9.4	26
	25	72W-53S1-53S1-07620	11.7	26
SMAf-SMAm	3.0	72W-32S1-32K1-00915	1.5	25
SMAf-Nm	2.0	72W-32K1-53S1-00610	1.0	25
	3.0	72W-32K1-53S1-00915	1.5	25
	6.0	72W-32K1-53S1-01830	3.0	25
SMAm-TNCm	1.5	72W-32S1-56S1-00457	0.8	18
	2.0	72W-32S1-56S1-00610	1.0	18
	3.0	72W-32S1-56S1-00915	1.5	18
	4.0	72W-32S1-56S1-01220	1.7	18
	6.0	72W-32S1-56S1-01830	3.0	18

Note 1 – Insertion Loss in dB (Typ.) at mid-band.

Note 2 – Return Loss in dB (Typ.) at mid-band.



Rosenberger RFlex® Cables



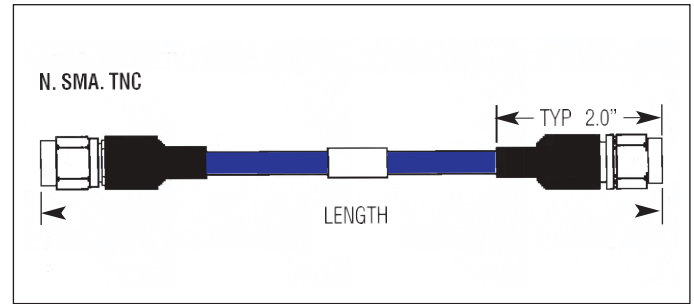
ELECTRICAL SPECIFICATIONS-RTK FLEX 402

IMPEDANCE, NOMINAL	50 OHMS
OPERATING FREQUENCY (GHz)	18
CAPACITANCE NOMINAL	29.4 pf/ft
VELOCITY OF PROPOGATION, NOMINAL	70.0%
RELATIVE SHIELDING	-110.0 dB MIN.
INSULATION RESISTANCE	1000 MEGOHMS MIN.
DIELECTRIC WITHSTANDING VOLTAGE	1000 VRMS MIN.
ELECTRICAL DELAY, NOMINAL	1.43 ns/ft or 120 ps/INCH
PULSE RF POWER	1000 WATTS MAX
(INTO A 50 OHM SYSTEM, WITH DUTY CYCLE LESS THAN CW RATING)	
FREQUENCY (GHz)	1 2 4 8 12 18
MAX. CW (WATTS)	290 195 154v 72 60 48
PHASE STABILITY (DEG)	0.50 1.00 2.00 5.00 8.00 10.00
LOSS STABILITY (dB)*	0.05 0.05 0.10 0.20 0.30 0.40

*CABLE FORMED AND STRAIGHTENED 90 DEGREES ON A 4" RADIUS

MECHANICAL SPECIFICATIONS RTK FLEX 402

CABLE MAX. DIAMETER	0.163 INCHES	4.14 mm
MIN. ONE TIME BEND RADIUS	1.00 INCHES	2.54 cm
PREFERRED BEND RADIUS	4.00 INCHES	10.20 cm
CONNECTOR RETENTION	25 POUNDS MIN.	111 N MIN
TEMPERATURE RANGE	-55 TO +125 DEGREES C	
MATING TORQUE	7-10 INCH POUNDS	.8-1.13 N-m
CONNECTOR INTERFACE	MIL-STD-348 HYBRID	



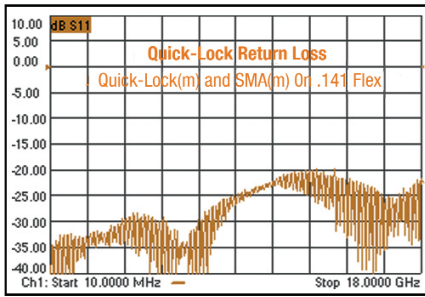
MATERIALS AND FINISHES RTK Flex 402

DESCRIPTION	MATERIAL	FINISH OR COLOR
CABLE JACKET	FEP	BLUE
MARKER	MIL-I-23053	BLACK or WHITE
BOOTS	ATUM	BLACK
CONTACTS	Brass or BeCu	GOLD PLATED
INSULATORS	PTFE	NONE
CONNECTOR BODIES	Brass or BeCu	GOLD PLATED
CONNECTOR NUTS	STAINLESS STEEL	PASSIVATED
GASKET	ZZ-R-765 SILICON RUBBER	

PART NUMBER	CONNECTOR TYPE	LENGTH INCHES	(+ -) LENGTH INCHES		(+ -) LENGTH cm		TYP RETURN LOSS IN dB AT FREQ. (IN GHz)			TYP INSERTION LOSS IN dB AT FREQ. (IN GHz)		
							UP TO 2	UP TO 8	UP TO 18	UP TO 2	UP TO 8	UP TO 18
72W-32S1-32S1-00305	SMA M-SMA M	12	0.25		30.5	6.35	30	27	18	0.20	0.54	0.90
72W-32S1-32S1-00457	SMA M-SMA M	18	0.25		45.7	6.35	30	27	18	0.34	0.74	1.14
72W-32S1-32S1-00610	SMA M-SMA M	24	0.25		61.0	6.35	30	27	18	0.45	0.97	1.51
72W-32S1-32S1-00915	SMA M-SMA M	36	0.50		91.5	12.70	30	27	18	0.63	1.37	2.13
72W-32S1-32S1-01220	SMA M-SMA M	48	0.50		122.0	12.70	30	27	18	0.81	1.77	2.75
72W-32S1-32S1-01830	SMA M-SMA M	72	0.75		183.0	19.05	30	27	18	1.81	2.56	3.98
72W-32S1-53S1-00610	N M-SMA M	24	0.25		61.0	6.35	28	24	17	0.49	0.92	1.37
72W-32S1-53S1-00915	N M-SMA M	36	0.50		91.5	12.70	28	24	17	0.67	1.32	1.99
72W-32S1-53S1-01220	N M-SMA M	48	0.50		122.0	12.70	28	24	17	0.86	1.71	2.61
72W-53S1-53S1-01830	N M-SMA M	72	0.75		183.0	19.05	28	24	17	1.22	2.44	3.72
72W-53S1-53S1-04750	N M-SMA M	180	1.50		457.0	38.10	28	24	17	3.66	7.32	11.17
72W-53S1-53S1-00610	N M-N M	24	0.25		61.0	6.35	28	24	17	0.47	0.90	1.35
72W-32S1-32K1-00915	N M-N M	36	0.50		91.5	12.70	28	24	17	0.65	1.29	1.97
72W-32K1-53S1-01830	N M-N M	72	0.75		183.0	19.05	28	24	17	0.83	1.69	3.99
72W-53S1-53S1-04750	N M-N M	180	1.50		457.0	38.10	28	24	17	3.12	6.33	9.71
72W-53S1-53S1-06100	N M-N M	240	2.00		610.0	50.80	28	24	17	4.17	8.44	12.95
72W-53S1-53S1-07620	N M-N M	280	2.50		762.0	63.50	28	24	17	4.87	9.85	15.11
72W-32S1-32K1-00915	SMA F-SMA M	36	0.50		91.5	12.70	28	24	18	0.69	1.40	2.20
72W-32K1-53S1-00610	SMA F-N M	24	0.25		61.0	6.35	28	24	17	0.48	0.98	1.63
72W-32K1-53S1-00915	SMA F-N M	36	0.50		91.5	12.70	28	24	17	0.71	1.38	2.19
72W-32K1-53S1-01830	SMA F-N M	72	0.75		83.0	19.05	28	24	17	1.21	2.65	4.05
72W-32S1-56S1-00457	SMA M-TNC M	18	0.25		45.7	6.35	23	18	15	0.37	0.69	1.10
72W-32S1-56S1-00610	SMA M-TNC M	24	0.25		61.0	6.35	23	18	15	0.49	0.92	1.48
72W-32S1-56S1-00915	SMA M-TNC M	36	0.50		91.5	12.70	23	18	15	0.67	1.32	2.18
72W-32S1-56S1-01220	SMA M-TNC M	48	0.50		122.0	12.70	23	18	15	0.89	1.71	2.80
72W-32S1-56S1-01830	SMA M-TNC M	72	0.75		183.0	9.05	23	8	15	1.22	2.45	3.98

Rosenberger RFlex® Cables - Quick Lock™

Rosenberger Test Cables: One trusted source for performance and value. Featuring QUICK-LOCK™ and PUSH-ON SMA™ connectors.



Quick-Lock™ Return Loss

	OAL in FT.	Part # RoHS Compliant	IL (dB) Typ NOTE 1	RL (dB) Typ NOTE 2
SMAm-to	1.5	72W-32S1-32QS1-00305	0.8	25
SMA Quick-Lock™	2.0	72W-32S1-32QS1-00457	1.0	25
RTK Flex 402	3.0	72W-32S1-32QS1-00610	1.5	25
	4.0	72W-32S1-32QS1-01220	1.7	25
	6.0	72W-32S1-32QS1-01830	3.0	28

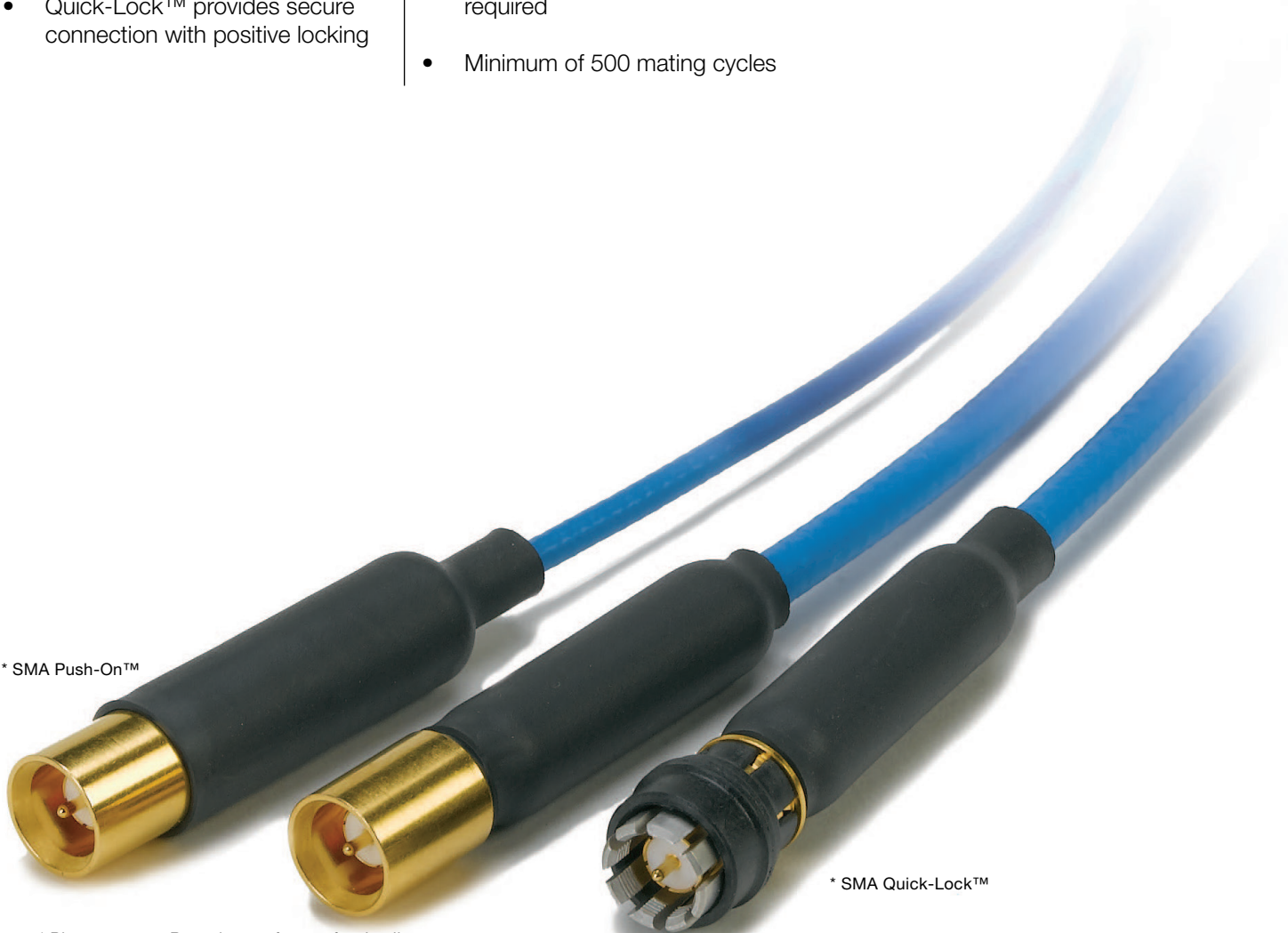
Note 1 – Insertion Loss in dB (Typ.) at mid-band.

Note 2 – Return Loss in dB (Typ.) at mid-band.

Features and Benefits

- Quick-Lock™ and Push-On™ mate with any female SMA
- Excellent for high-density applications
- Unique over-molded strain relief is exceptionally rugged and durable
- Quick-Lock™ provides secure connection with positive locking
- Reliable and easy connections
- Ideal for test labs or where fast production testing is required
- Excellent electrical performance to 18 GHz
- No wrenches (torque or other) required
- Minimum of 500 mating cycles

* SMA Push-On™

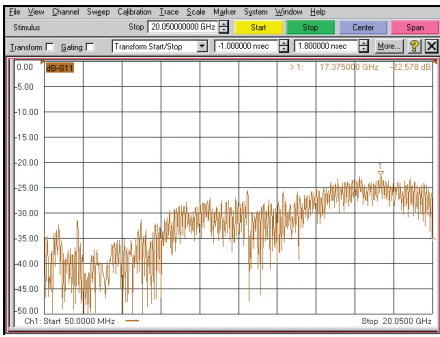


* SMA Quick-Lock™

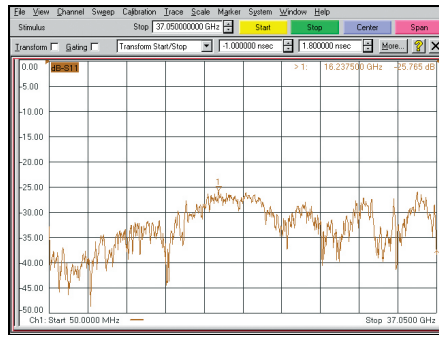
* Please contact Rosenberger factory for details.

Rosenberger SMA⁺® Cables

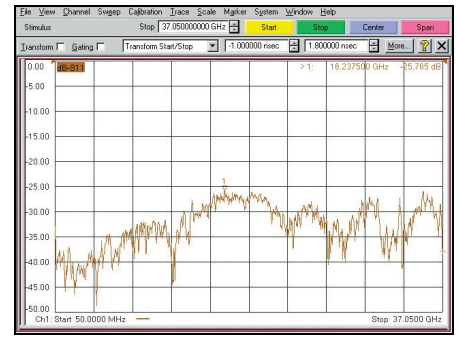
The **PLUS** means 36 GHz performance at a fraction of the cost.



Mated with SMA



Mated with 3.5mm

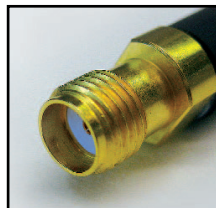


Mated with 2.92mm

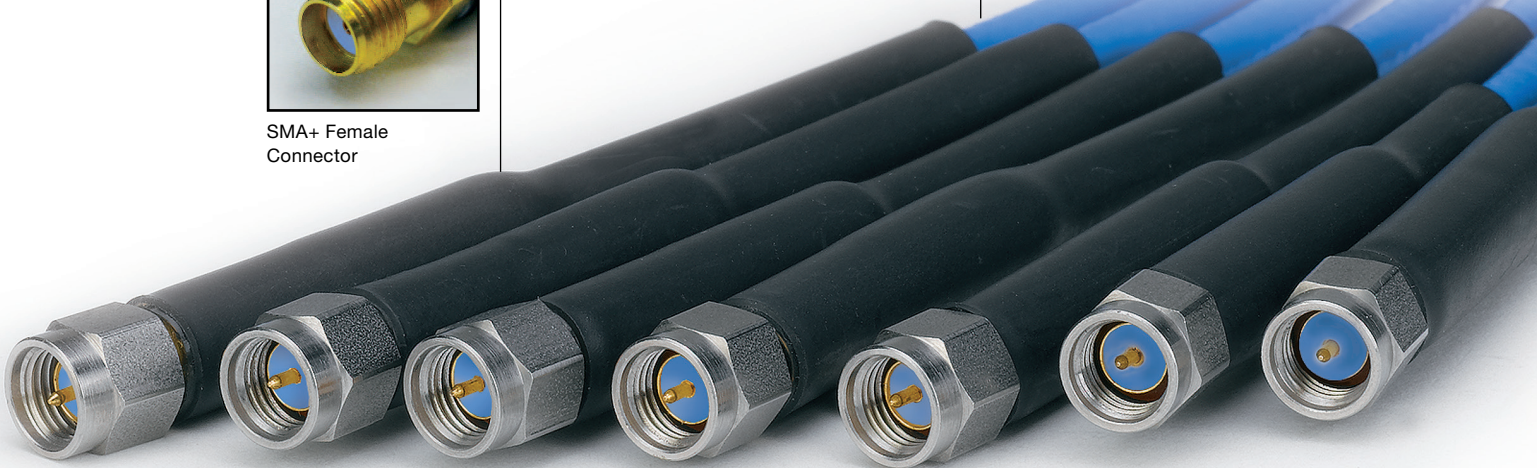
Features and Benefits

- High-performance, high-frequency test cables built for day-to-day applications
- Available in Rosenberger RTK-Flex 405 (flexible) cable or RTK-FS-085 (comfortable) cable. Or, special order in 085 semi-rigid cable built to your specifications
- Excellent performance over a broad frequency range (see charts above)
- Standard SMA interface -- intermatable with SMA, 3.5mm and 2.92mm (K*) connectors
- Gold-plated center contacts, passivated stainless steel coupling nuts and a proprietary dielectric
- Unique over-molded strain relief is exceptionally rugged and durable
- Temperature range: -55°C to +125°C
- Minimum return loss: -18dB when mated with SMA, 3.5mm or 2.92mm (K*) connectors

*K Connector® is a registered trademark of Anritsu Corporation

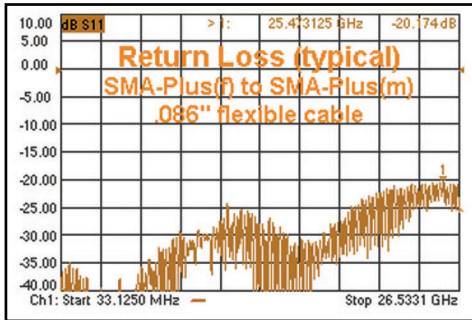


SMA+ Female Connector

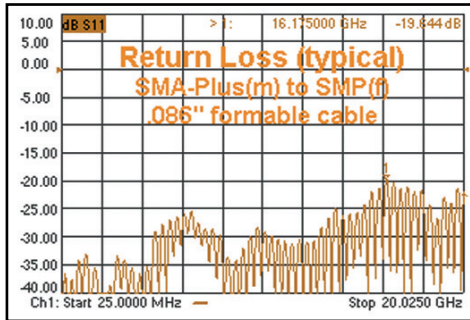


Rosenberger SMA+[®] Cables

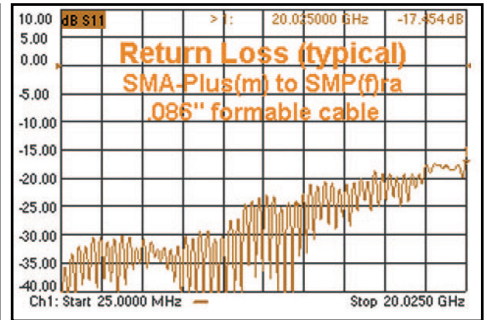
Standard SMP



Mated with SMA+f



Mated with SMP f



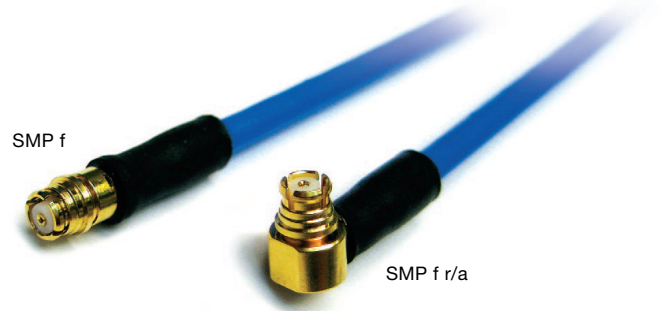
Mated with SMP f r/a

ELECTRICAL SPECIFICATIONS* RTK Flex 405 & RTK FS405

IMPEDANCE, NOMINAL	50 OHMS
OPERATING FREQUENCY (GHz)	36
CAPACITANCE NOMINAL	29.4 pf/ft
VELOCITY OF PROPOGATION, NOMINAL	70.0%
RELATIVE SHIELDING	-110.0 dB MIN.
INSULATION RESISTANCE	1000 MEGOHMS MIN.
DIELECTRIC WITHSTANDING VOLTAGE	1000 VRMS MIN.
ELECTRICAL DELAY, NOMINAL	1.43 ns/ft or 120 ps/INCH
PULSE RF POWER	500 WATTS MAX
(INTO A 50 OHM SYSTEM, WITH DUTY CYCLE LESS THAN CW RATING)	
FREQUENCY (GHz) →	1 6 10 18 26 36
PHASE STABILITY (DEG) TYP →	<1 <2 <3 <5 <7 <9
LOSS STABILITY (dB)* →	0.10 0.20 0.03 0.40 0.60 0.80
*CABLE FORMED AND STRAIGHTENED 90 DEGREES ON A 4" RADIUS	

MECHANICAL SPECIFICATIONS* RTK Flex 405 & RTK FS405

CABLE MAX. DIAMETER	0.104 INCHES	2.64 mm
MIN. ONE TIME BEND RADIUS	0.75 INCHES	1.91 cm
PREFERRED BEND RADIUS	2.00 INCHES	5.08 cm
CONNECTOR RETENTION	10 POUNDS MIN.	44.5 N MIN
TEMPERATURE RANGE	-55 TO +125 DEGREES C	
MATING TORQUE	7-10 INCH POUNDS	.8-1.13 N-m
CONNECTOR INTERFACE	MIL-STD-348 HYBRID	



MATERIALS AND FINISHES* RTK Flex 405 & RTK FS405

DESCRIPTION	MATERIAL	FINISH OR COLOR
CABLE JACKET	FEP	BLUE
MARKER	MIL-I-23053	BLACK or WHITE
BOOTS	ATUM	BLACK
CONTACTS	Brass or BeCu	GOLD PLATED
INSULATORS	PROPRIETARY DIELECTRIC	BLUE
CONNECTOR BODIES	Brass or BeCu	GOLD PLATED
CONNECTOR NUTS	STAINLESS STEEL	PASSIVATED
GASKET	ZZ-R-765	SILICON RUBBER

*Consult factory for additional configurations and options

	OAL in FT.	Part # RoHS Compliant	IL (dB) Typ NOTE 1	RL(dB) Typ NOTE 2		OAL in FT.	Part # RoHS Compliant	IL (dB) Typ NOTE 1	RL(dB) Typ NOTE 2
SMA+m-SMA+m	1.0	71W-32+S1-32+S1-00305	1.4	25	SMA+m-SMA f r/a	.33	71H-19K2-32+S1-00102	0.6	18
RTK Flex 405	1.5	71W-32+S1-32+S1-00457	1.9	25	RTK FS 405	.50	71H-19K2-32+S1-00159	0.8	18
	2.0	71W-32+S1-32+S1-00610	2.4	25		.67	71H-19K2-32+S1-00203	1.0	18
	3.0	71W-32+S1-32+S1-00915	3.5	25		1.0	71H-19K2-32+S1-00305	1.4	18
	4.0	71W-32+S1-32+S1-01220	4.5	25		1.5	71H-19K2-32+S1-00457	1.9	18
	6.0	71W-32+S1-32+S1-01830	5.6	25					
SMA+m-SMA+f	1.0	71W-32+S1-32+K1-00305	1.4	20	SMA+f-SMAf	.33	71H-19K1-32+K1-00102	0.6	18
RTK Flex 405	1.5	71W-32+S1-32+K1-00457	1.9	20	RTK FS 405	.50	71H-19K1-32+K1-00159	0.8	18
	2.0	71W-32+S1-32+K1-00610	2.4	20		.67	71H-19K1-32+K1-00203	1.0	18
	3.0	71W-32+S1-32+K1-00915	3.5	20		1.0	71H-19K1-32+K1-00305	1.4	18
	4.0	71W-32+S1-32+K1-01220	4.5	20		1.5	71H-19K1-32+K1-00457	1.9	18
	6.0	71W-32+S1-32+K1-01830	5.6	20					
SMA+m-SMPf	.33	71H-19K1-32+S1-00102	0.6	18	SMA+f-SMPf r/a	.33	71H-19K2-32+K1-00102	0.6	18
RTK Flex 405	.50	71H-19K1-32+S1-00153	0.8	18	RTK FS 405	.50	71H-19K2-32+K1-00153	0.8	18
	.67	71H-19K1-32+S1-00203	1.0	18		.67	71H-19K2-32+K1-00203	1.0	18
	1.0	71H-19K1-32+S1-00305	1.4	18		1.0	71H-19K2-32+K1-00305	1.4	18
	1.5	71H-19K1-32+S1-00457	1.9	18		1.5	71H-19K2-32+K1-00457	1.9	18

Note 1 – Insertion Loss in dB (Typ.) at mid-band.

Note 2 – Return Loss in dB (Typ.) at mid-band.

Warranty - If there is a connector failure during the first six months following shipment, we will repair or replace (at our option) your cable (providing the damage was not caused by misuse or abuse).

Rosenberger High Frequency Cable Assemblies

Rosenberger's high frequency, flexible cable assemblies incorporating our high performance 1.85mm, 2.92mm, Mini SMP and WSMP connectors.



1.85mm Male Connector



WSMP Female Right Angle



WSMP Female Straight



2.92mm Male Straight



Mini SMP Female Right Angle



Mini SMP Female Straight

Series	Description	P/N
RPC 1.85mm to WSMP	1.85mm(m)-1.85mm(m), DC - 70 GHz, R.L.>= 12 dB @ 50 GHz, Typical, 8" length, RTK Flex 047.	70W-08S1-08S1-00203
	1.85mm(m)-WSMP(f) DC - 70 GHz, R.L.>= 12 dB @ 26 GHz, Typical, 8" length, RTK Flex 047.	70W-08S1-W1K1-00203
	1.85mm(f)-WSMP(f) DC - 70 GHz, R.L.>= 12 dB @ 50 GHz, Typical, 3.1" length, RTK Flex 047. (Short, 80 mm length, with female connector for staggered cable assembly application close to PCB).	70W-08K1-W1K1-00080
	1.85mm(m)-WSMP(f) right angle, DC - 70 GHz, R.L.>= 10 dB @ 50 GHz, Typical, 8" length, RTK Flex 047.	70W-08S1-W1K1-00203
RPC 2.92mm to WSMP	2.92mm(m)-WSMP(f), DC - 40 GHz, R.L.>= 12 dB @ 26 GHz, Typical, 8" length, RTK Flex 047.	70W-02S1-W1K1-00203
	2.92mm(f)-WSMP(f) DC - 40 GHz, R.L.>= 12 dB @ 26 GHz, Typical, 3.1" length, RTK Flex 047. (Short, 80 mm length, with female connector for staggered cable assembly application close to PCB).	70W-02K1-W1K1-00080
	2.92mm(m)-WSMP(f) right angle, DC - 70 GHz, R.L.>= 10 dB @ 50 GHz, Typical, 8" length, RTK Flex 047.	70W-02S1-W1K2-00203
RPC 2.92mm to 2.92mm	2.92mm(m)-2.92mm(m), DC - 40 GHz, R.L.>= 16 dB @ 40 GHz, Typical, 12" length, RTK Flex 047.	70W-02S1-02S1-00203
RPC 2.92mm to Mini SMP	2.92mm(m)-Mini SMP (f), straight, DC - 40 GHz, R.L.>= 15 dB @ 18 GHz, Typical, 8" length, RTK Flex 047.	70W-02S1-18K1-00203
	2.92mm(f)-Mini SMP(f), straight, DC - 40 GHz, R.L.>= 15 dB @ 18 GHz, Typical, 3.1" length, RTK Flex 047. (Short, 80 mm length, with female connector for staggered cable assembly application close to PCB).	70W-02K1-W1K1-00080

Series	Description	P/N
WSMP to WSMP	WSMP(f) straight - WSMP(f) DC - 70 GHz, R.L.>= 15 dB @ 26 GHz, Typical, 8" length, RTK Flex 047.	70W-W1K1-W1K1-00203
	WSMP(f), r/a - WSMP(f) r/a, DC - 70 GHz, R.L.>= 15 dB @ 18 GHz, Typical, 8" length, RTK Flex 047.	70W-W1K2-W1K2-00203
	WSMP(f), straight - WSMP(f) r/a, DC - 70 GHz, R.L.>= 17 dB @ 18 GHz, Typical, 8" length, RTK Flex 047.	70W-W1K1-W1K2-00203
RPC 1.85mm to Mini SMP	Straight to 1.85mm(m) - Mini SMP (f), straight, DC - 65 GHz, R.L.>= 15 dB @ 26.5 GHz, Typical, 8" length, RTK Flex 047.	70W-08S1-18K1-00203
	1.85mm(f) - Mini SMP(f), DC - 65 GHz, R.L.>= 15 dB @ 26.5 GHz, Typical, 3.1" length, RTK Flex 047. (Short, 80 mm length, with female connector for staggered cable assembly application close to PCB).	70W-08K1-18K1-00080
Mini SMP to Mini SMP	Mini SMP straight to mini SMP Straight DC - 65 GHz, R.L.>= 20 dB @ 18 GHz, Typical, 8" length, RTK Flex 047.	70W-18K1-18K1-00203
	Mini SMP straight to mini SMP straight, DC - 65 GHz, R.L.>= 16 dB @ 12 GHz, Typical, 8" length, RTK Flex 047. (Short, 80 mm length, with female connector for staggered cable assembly application close to PCB).	70W-18K1-18K2-00203
	Mini SMP r/a to mini SMP r/a, DC - 18 GHz, R.L.>= 14 dB @ 12 GHz, Typical, 8" length, RTK Flex 047.	70W-18K2-18K2-00203
	Now with Rosenberger High Performance r/a technology.	

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