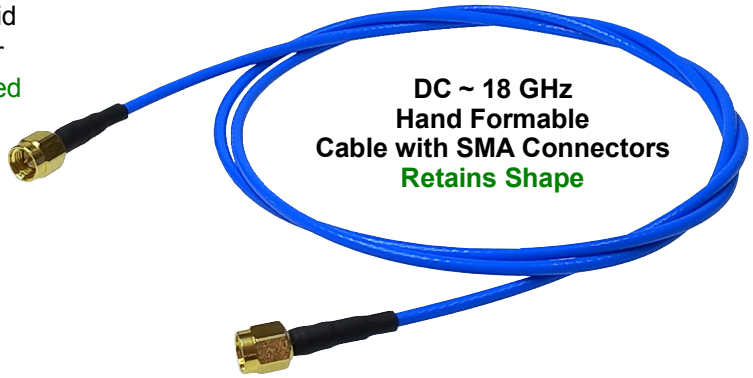
Handformable 'SF05' MIL-C-17 Pre-Connectorized Cable Sets

Get quick supply of samples ▪ Order small quantity ▪ Get quick delivery

SONA Technologies
reliable performance, dependable service

- HANDFORMABLE version of RG405 semirigid
- Equivalent to Sucoform_086 of Huber Suhner
- EASILY hand routable, no special tools needed

SF05 series are HANDFORMABLE cable set suitable for operation from DC-18 GHz. These are electrically and mechanically similar to RG405 (0.085") semirigid.



Materials & Turnaround Time

- MIL-C-17 conformant hand formable cable in stock
- Imported SMA(M), N(M) straight connectors in stock

MIL Standards Conformance

- MIL-C-17 for cable
- MIL-PRF-39012 for connectors

APPLICATIONS

- Military interconnect applications where MIL spec pedigree is required
- Defense systems use where a cable assembly with stable electrical properties is needed
- Where easily routable substitute for RG405 is needed

Advantages of Handformable Cable

- Electrically & mechanically similar to RG405 (0.085") semirigid cable.
- Hand Formable: Easily bendable with hand and retain. This is an advantage over semirigid cable which are a nightmare to bend. No special bending tools are needed

Phase Matching

We can provide phase matched set of cables for applications where electrical length is critical for system performance, for example in phased arrays. Please specify:

± A degrees @ B GHz ***OR*** ± X pS (XX is the delay in pS)
(where A is degree of phase matching and B is the frequency)

Physical & Mechanical Specifications

Parameters	SF05
Center Conductor	0.53mm
Dielectric	1.65mm
Outer Conductor	2.16mm
Jacket	(FEP) 2.50mm
Bend Radius (min)	6mm
Weight	0.022kg/m
Temperature Range	-40°C to +165°C

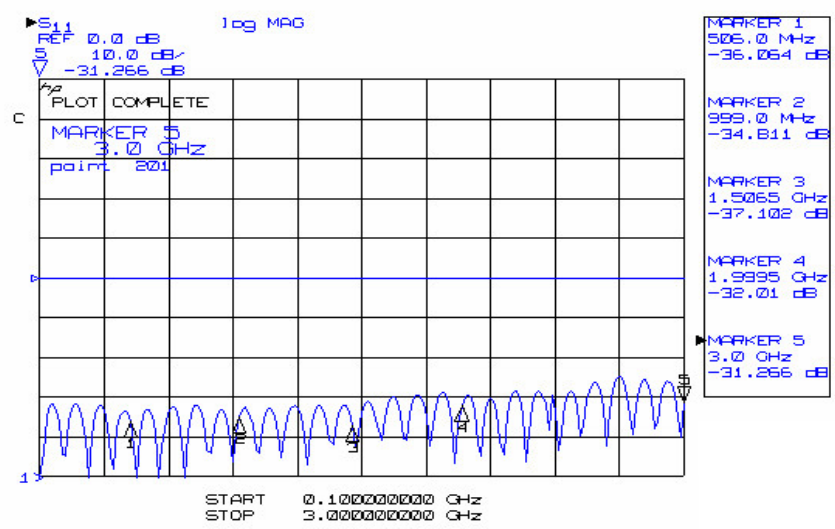
Electrical Specifications

Parameter	SF05
Impedance	50 Ohm
Frequency	DC - 18 GHz
Velocity of Propagation	70 %
Capacitance	95pF/m
Shielding Effectiveness	> -110 dB
Operating Voltage	1500 Vrms max.

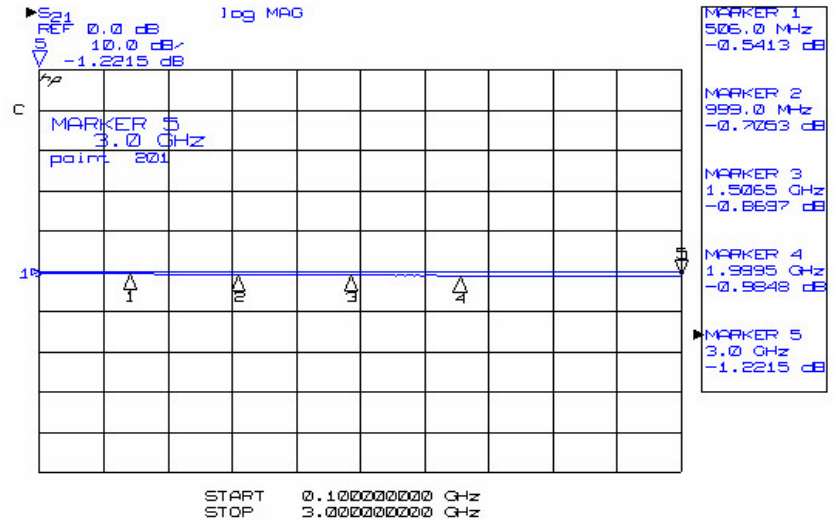
Attenuation and Power handling Vs Frequency

Frequency (GHz)	0.4	1	5	10	18
Attenuation (db/meter)	0.45	0.72	1.64	2.62	3.45
Average Power (W)	240	150	70	47	35

Return Loss of 1 meter (SMA(M) to SMA(M) SF05 Cable Set



Insertion Loss of 1 meter (SMA(M) to SMA(M) SF05 Cable Set



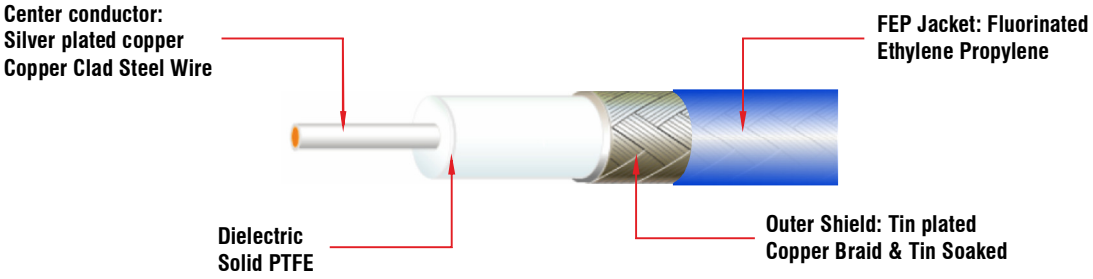
Ordering Codes Description

		(Length)		(Connector 1)		(Connector 2)	
SF05	-	□ □	-	(□ /□)□	-	(□ /□)□ -	□
		L L		1 2 3		1 2 3	U

L L	Length	0.5 = 0.5 ; 1 = 1.0 ; 2 = 2.0
1	Connector Series	SMA = SMA ; N = N ; BNC = BNC; TNC = TNC
2	Male/Female Designator	M = Male ; F = Female
3	Orientation of Connector	ST = Straight ; RA = Right Angle
U	Unit of Length	M = Meter ; F = Feet ; I = Inch

1 meter cable set with SMA (Male) on both sides = SF05-1.0-SMA(M/ST)-SMA(M/ST)-M

SF05-Series Cable Construction



Connectors Specifications

Specifications	SMA Connectors
Outer Conductor	Brass, Gold plated
Center Conductor	Brass, Gold Plated
Insulation	PTFE
Gasket	Silicon Rubber
Frequency range	DC~18 GHz
Nominal Impedance	50 Ω
Mating/Unmating	500 operations
Vibration	As per MIL-STD-202, method 204, test condition D
Mechanical Shock	As per MIL-STD-202, method 213, test condition I
Thermal Shock	As per MIL-STD-202, method 107, test condition B
Humidity	As per MIL-STD-202, method 106
Temperature Cycle	As per MIL-STD-202, method 102A, test condition C

Cable Set Ordering Codes

Ordering Code	Length	Connector 1	Connector 2	Frequency Range
SMA (Male) Straight - SMA (Male) Straight				
SF05-0.5-SMA(M/ST)-SMA(M/ST)-M	0.5m	SMA (M) St	SMA (M) St	DC ~ 18GHz
SF05-1.0-SMA(M/ST)-SMA(M/ST)-M	1m	SMA (M) St	SMA (M) St	DC ~ 18GHz
SF05-2.0-SMA(M/ST)-SMA(M/ST)-M	2m	SMA (M) St	SMA (M) St	DC ~ 18GHz
SF05-3.0-SMA(M/ST)-SMA(M/ST)-M	3m	SMA (M) St	SMA (M) St	DC ~ 18GHz
SF05-5.0-SMA(M/ST)-SMA(M/ST)-M	5m	SMA (M) St	SMA (M) St	DC ~ 18GHz
SF05-1.0-SMA(M/ST)-SMA(M/ST)-F	1 feet	SMA (M) St	SMA (M) St	DC ~ 18GHz
SF05-2.0-SMA(M/ST)-SMA(M/ST)-F	2 feet	SMA (M) St	SMA (M) St	DC ~ 18GHz
SMA (Male) Straight - SMA (Male) Right Angle				
SF05-0.5-SMA(M/ST)-SMA(M/RA)-M	0.5m	SMA (M) St	SMA (M) RA	DC ~ 9GHz
SF05-1.0-SMA(M/ST)-SMA(M/RA)-M	1m	SMA (M) St	SMA (M) RA	DC ~ 9GHz
SF05-2.0-SMA(M/ST)-SMA(M/RA)-M	2m	SMA (M) St	SMA (M) RA	DC ~ 9GHz
SF05-3.0-SMA(M/ST)-SMA(M/RA)-M	3m	SMA (M) St	SMA (M) RA	DC ~ 9GHz
SF05-5.0-SMA(M/ST)-SMA(M/RA)-M	5m	SMA (M) St	SMA (M) RA	DC ~ 9GHz
SF05-2.0-SMA(M/ST)-SMA(M/RA)-F	2 feet	SMA (M) St	SMA (M) RA	DC ~ 9GHz