

KA40-Series Cable Sets are for 40 GHz RF applications. They incorporate ultra low loss taped PTFE triple shielded coaxial cable and low VSWR stainless steel K (2.92mm) connectors

Applications

- EW Systems - 18~40 GHz
- Test Cables upto 40 GHz
- Ka-Band communication

Substitute for

- Radial SHF3M
- Micro-Coax Utiflex UFB142A



Specifications of Ultra Low Loss 40 GHz Coaxial Cable

Center Conductor	Silver Plated Copper
Dielectric	Low density PTFE taped
Inner Shield	Helically wrapped silver plated Copper Foil
Outer Shield	Silver plated copper braid
Jacket	FEP, <4.3mm diameter
Mini. Bend Radius	< 19 mm
Impedance	50 Ohm
Attenuation @ 40 GHz	< 2.48 dB/meter
Power Handling @ 40 GHz	> 70 watt CW
Shielding Effectiveness	> 100
Capacitance	24 pF/feet
Velocity of Propagation	> 77%
Temperature Range	-55°C to +150° C

K (2.92 mm) Connector Specifications

MIL Standard	MIL-PRF-39012	Insulation	PTFE
Outer Conductor	Passivated Stainless Steel	Frequency	DC~40 GHz
Center Conductor	BeCu, Gold Plated		

Ordering Codes Description

KA40 - □ □ - □ (□ / □) - □ (□ / □) - □
L L 1 2 3 1 2 3 U

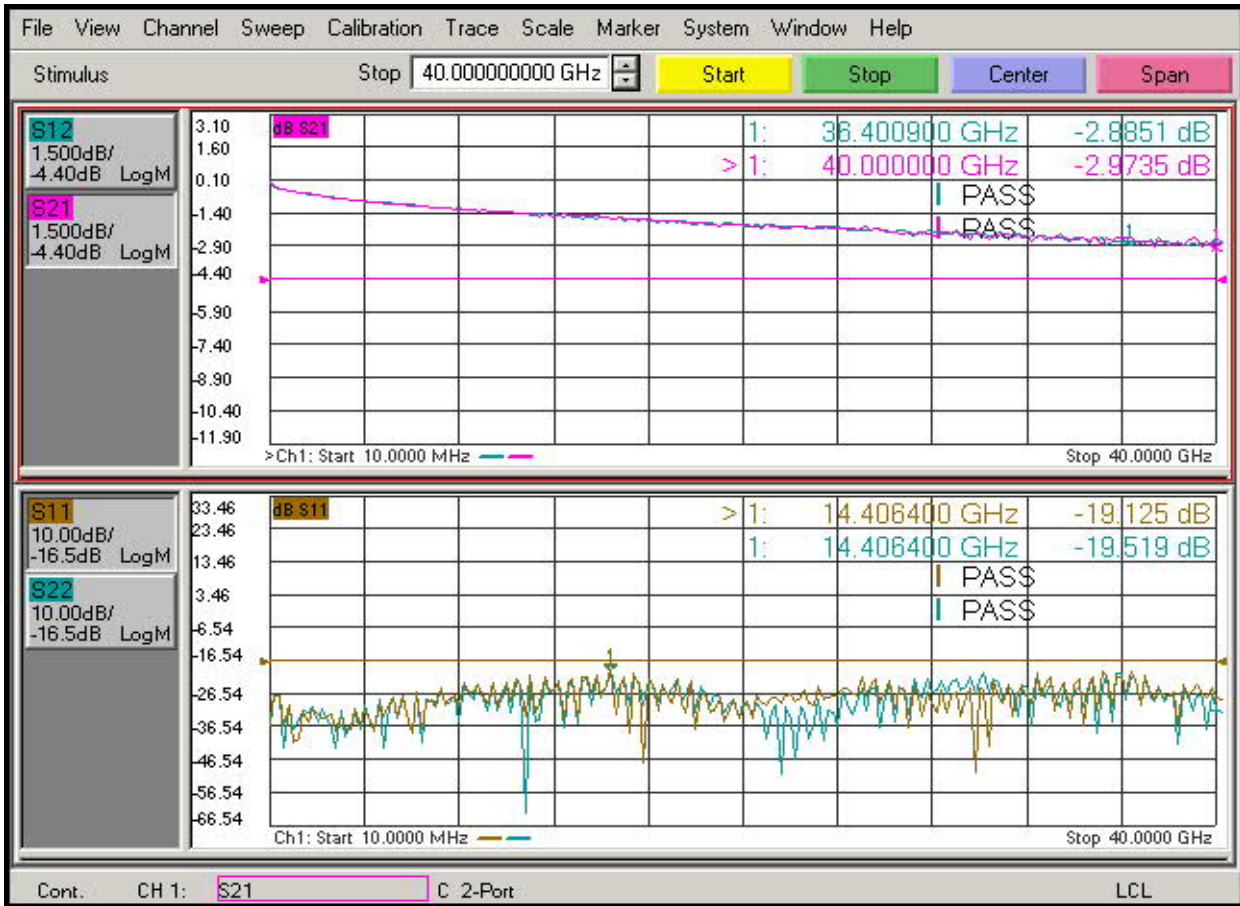
LL	Length	0.5 = 0.5 ; 1 = 1.0 ; 2 = 2.0
1	Connector Series	K = K
2	Male/Female Designator	M = Male
3	Orientation of Connector	ST = Straight
U	Unit of Length	M = Meter ; F = Feet ; I = Inch

1 meter KA-Series cable set with K(Male) on both sides = KA40-1-K(M/ST)-K(M/ST)-M

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Insertion Loss plot of KA40-Series Cable Set, 1.0 meter, K (M) Connectors



KA40-Series Cable Set Ordering Codes (2.92 K Connectors)

Ordering Code	Conn.1	Conn.2	Freq.	Length	IL dB DC-40G	VSWR DC-40G
KA40-1-K(M/ST)-K(M/ST)-F	K(M)	K(M)	DC-40	1 feet	1.1	1.50:1
KA40-2-K(M/ST)-K(M/ST)-F	K(M)	K(M)	DC-40	2 feet	2.6	1.50:1
KA40-0.25-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	0.25 m	1.7	1.50:1
KA40-0.5-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	0.5 m	2.3	1.50:1
KA40-0.7-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	0.7 m	2.9	1.50:1
KA40-0.75-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	0.75 m	3	1.50:1
KA40-1-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	1 m	3.4	1.50:1
KA40-1.5-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	1.5 m	4.7	1.50:1
KA40-2-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	2 m	6	1.50:1
KA40-3-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	3 m	8.5	1.50:1
KA40-4-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	4 m	11	1.50:1
KA40-5-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	5 m	13.8	1.50:1
KA40-6-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	6 m	16.3	1.50:1
KA40-7-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	7 m	18.9	1.50:1
KA40-8-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	8 m	21.5	1.50:1
KA40-10-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	10 m	26.5	1.50:1
KA40-15-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	15 m	39	1.50:1
KA40-20-K(M/ST)-K(M/ST)-M	K(M)	K(M)	DC-40	20 m	51.3	1.50:1

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KA40-Series Cable Set Ordering Codes (SMA Connectors) - MOQ 5 pcs

Ordering Code	Conn 1	Conn 2	Freq	Length	IL (dB) DC-18 GHz	VSWR DC-18 GHz
KA40-1-SMA(M/ST)-SMA(M/ST)-F	SMA(M)	SMA(M)	DC-18	1 feet	1.1	1.35:1
KA40-2-SMA(M/ST)-SMA(M/ST)-F	SMA(M)	SMA(M)	DC-18	2 feet	1.6	1.35:1
KA40-0.25-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	0.25 m	1.0	1.35:1
KA40-0.5-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	0.5 m	1.4	1.35:1
KA40-0.7-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	0.7 m	1.7	1.35:1
KA40-0.75-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	0.75 m	1.8	1.35:1
KA40-1-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	1 m	2.3	1.35:1
KA40-1.5-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	1.5 m	3.1	1.35:1
KA40-2-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	2 m	4.0	1.35:1
KA40-3-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	3 m	5.7	1.35:1
KA40-4-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	4 m	7.4	1.35:1
KA40-5-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	5 m	9.1	1.35:1
KA40-6-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	6 m	10.8	1.35:1
KA40-7-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	7 m	12.5	1.35:1
KA40-8-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	8 m	14.2	1.35:1
KA40-10-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	10 m	17.6	1.35:1
KA40-15-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	15 m	26.1	1.35:1
KA40-20-SMA(M/ST)-SMA(M/ST)-M	SMA(M)	SMA(M)	DC-18	20 m	34.6	1.35:1

Note: MOQ (minimum order quantity) of 5 pcs is applicable for above cable sets

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Specifications for 40 GHz Ultra Low Loss & Phase Stable Flexible Cable Assemblies

Length Connector 1 Connector 2 Loss

- Should be flexible and easily routable
- Cable should conform to MIL standards MIL-C-17 Connectors to MIL-PRF-39012

Coaxial Cable Electrical Specifications

- Impedance : 50 ohms
- Working Frequency : DC~40 GHz
- Shielding Effectiveness : better than 100 dB
- Power Handling : > 50 watts CW @ 40 GHz
- Attenuation : < 2.55 dB per meter @ 40 GHz
- Velocity of Propagation : > 77%

Physical & Mechanical Specifications

- Construction should be triple shielded for low loss
- Inner Conductor : Silver Plated Copper
- Dielectric : Low density taped PTFE
- Inner Shield : Helically warped silver plated copper foil
- Outer Shield : Silver plated copper braid
- Jacket : Rugged Fluorinated Ethylene Propylene (FEP)
- Overall diameter : < 4.3 mm
- Bend Radius : < 19 mm
- Temperature Range : - 55°C ~ +150°C
- VSWR : < 1.5 :1 @DC-40GHz

Connector Specifications Precision K (2.92 mm) Male Straight

- MIL Standard : Should meet MIL-PRF-39012 requirements
- Body : Passivated, Stainless steel
- Center Conductor : Beryllium Copper, Gold Plated
- Nominal Impedance : 50 Ω
- Working Frequency range : DC~40 GHz
- Should meet MIL-STD-202 Standard for environmental conditions