

MVE Low Loss Flexible

Phase Stable Coax Cable

MCBL-LL404.50

MCBL-LL404P.50*Phase stable

Specifications

Features

- 82%Vp PTFE Tape + SPC Foil
- Ultra Low Loss, Excellent Temp Phase Stable
- Equivalent to cnx3507
- Replace to UFB142A, HF130,IW1401,

Applications

- Military / Commercial Communication Systems Interconnect
- Shipboard System
- Airborne Platform
- Radio Station



CONSTRUCTION

ITEM	MATERIAL	DIAMETER(mm)	Tolerance(mm)
INNER CONDUCTOR	Silver Plated Copper	0.91	±0.03
DIELECTRIC	LD PTFE	2.50	±0.05
OUTER CONDUCTOR	Silver-plated Copper Foil	2.70	±0.05
INNER LAYER	PET	2.75	±0.05
OUTER SHEILD	Silver-plated Copper	3.16	3.25 Max
JACKET	FEP (Clean / Gray)	3.60	±0.15

ELECTRICAL DATA

MIN. BEND RADIUS :Installation	18mm
MIN. BEND RADIUS: Repeated	36mm
WEIGHT (g/m)	33
OPERATING TEMP	-55°C ~ +165°C
TEMP STORAGE	-65°C ~ +165°C

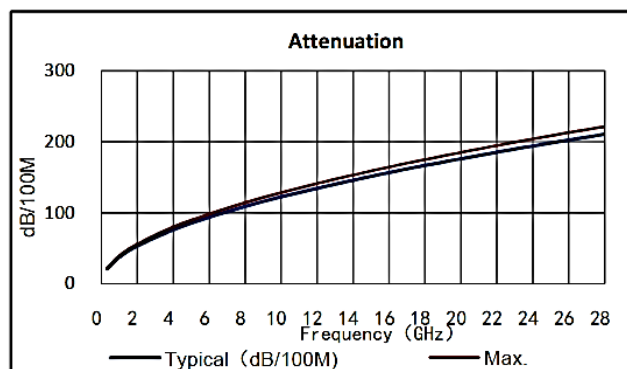
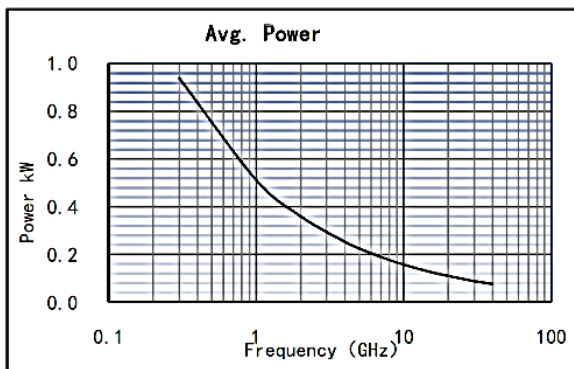
MECHANICAL DATA

FREQUENCY	40.0GHz
IMPEDANCE	50 Ohm
VELOCITY OF PROPAGATION	82.0 %
SHIELDING EFFECT	90 dB
VOLTAGE WITHSTAND	900 V.DC

TYP. ATTENUATION(25°C) and TYP. AVG. POWER (40°C)

Freq.(GHz)	0.3	1	2	4	6	8	10	12	14	18	26.5	40.0
dB/100m	20.40	37.50	53.40	76.10	93.80	108.90	122.30	134.60	146.0	166.67	204.80	255.7
Power kW	0.940	0.511	0.359	0.252	0.204	0.176	0.157	0.142	0.131	0.115	0.094	0.075

$K1 = 1.1684700$ $K2 = 0.0005500$ Equation = $K1 * \sqrt{F \text{ MHz}} + K2 * F \text{ MHz}$



NOTES:

1. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME
2. CUSTOMER OUTLINE DRAWING FOR REFERENCE ONLY





Cable Assembly Part Number

MVE PART NUMBER	CONNECTOR 1	CONNECTOR 2	LENGTH (cm)	FREQUENCY (GHz)	VSWR
120140.LL404.XX	2.4mm Male	2.92mm Male	15, 30, 50, 60, 90, 100	40	1.30
140140.LL404.XX	2.92mm Male	2.92mm Male	15, 30, 50, 60, 90, 100	40	1.30
140142.LL404.XX	2.92mm Male	2.92mm Male R/A	15, 30, 50, 60, 90, 100	40	1.30
140140.LL404P.XX(HR)	2.92mm Male	2.92mm Male	15, 30, 50, 60, 90, 100	40	1.30
140140.LL404P1.XX	2.92mm Male	2.92mm Male	15, 30, 50, 60, 90, 100	40	1.30
140150.LL404P1.XX	2.92mm Male	2.92mm Female	15, 30, 50, 60, 90, 100	40	1.25
150150.LL404P.XX	2.92mm Female	2.92mm Female	15, 30, 50, 60, 90, 100	40	1.30
140140.LL404P2.XX	2.92mm Male	2.92mm Male	15, 30, 50, 60, 90, 100	40	1.3

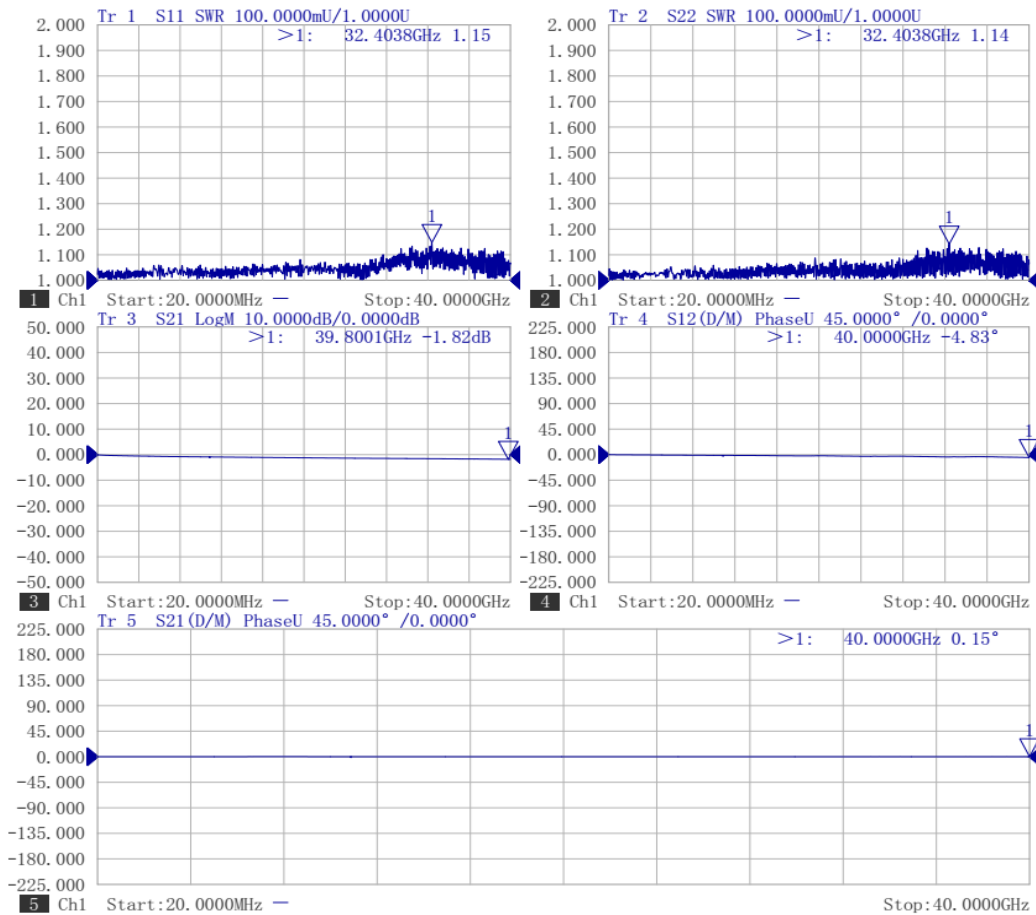
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Typical Test Result

PART NUMBER	DESCRIPTION
140140.LL404P2.70	2.92mm Male To2.92mm Male, LL404P Cable DC-40GHz,Phase stability<8°@40GHz,phase match<20°@40GHz/group./ L:70cm



	SweepType	Start (GHz)	Stop (GHz)	Points	IF BW (Hz)	SweepTime (s)	Port1, 2Power (dBm)
Ch1	LIN_SWEEP	0.020000000	40.000000000	1601	10000	1.000000	0.00, 0.00

	Marker	Delta	Stimulus	Response
Win1				
Trace1--S11	1		32.4038GHz	1.15
Win2				
Trace2--S22	1		32.4038GHz	1.14
Win3				
Trace3--S21	1		39.8001GHz	-1.82dB
Win4				
Trace4--S12	1		40.0000GHz	-4.83°
Win5				
Trace5--S21	1		40.0000GHz	0.15°

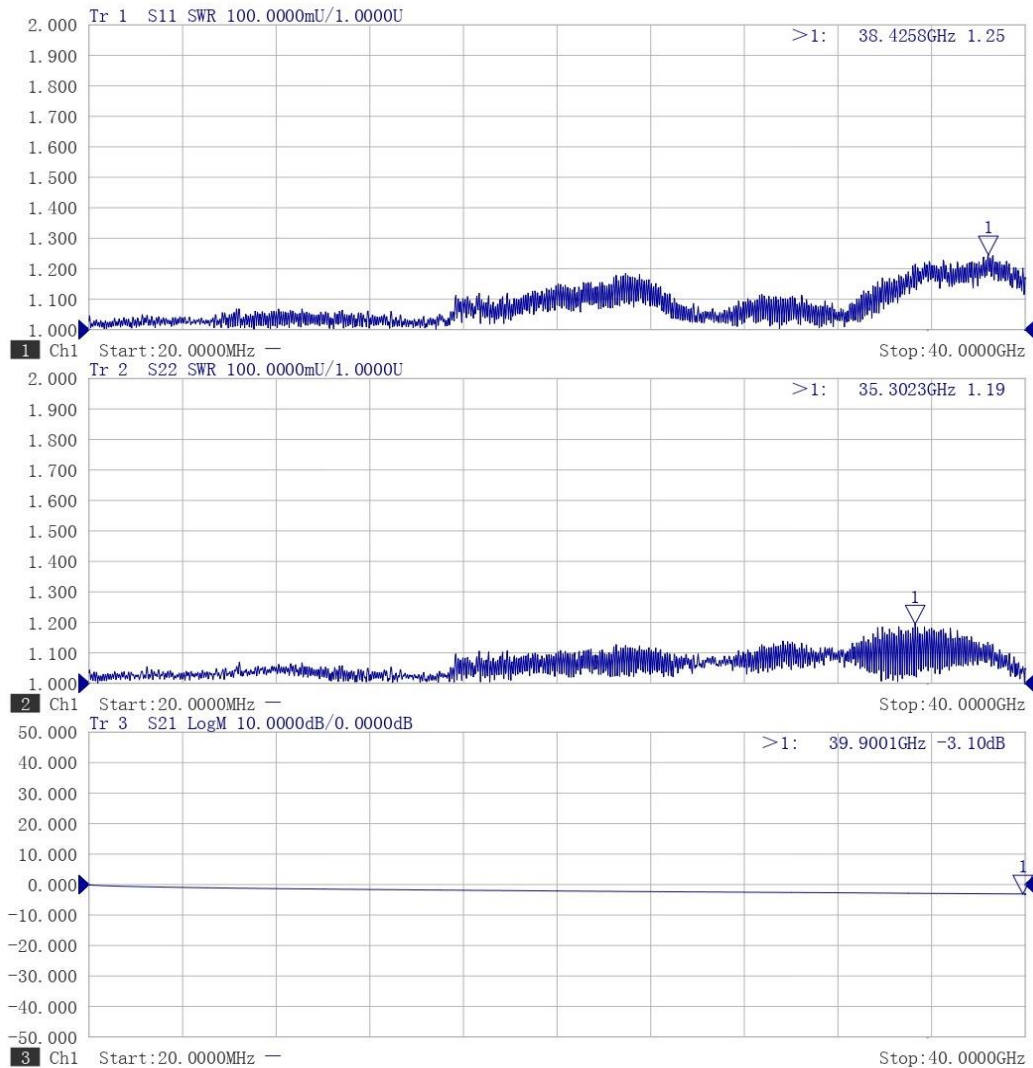
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Typical Test Result

PART NUMBER	DESCRIPTION
140142.LL404.120	2.92mm Male To 2.92mm Male R/A, DC-40GHz LL404 Cable / L:120cm



	SweepType	Start (GHz)	Stop (GHz)	Points	IF BW (Hz)	SweepTime (s)	Port1, 2Power (dBm)
Ch1	LIN_SWEEP	0.020000000	40.000000000	1601	10000	1.000000	0.00, 0.00

	Limit type	Start stimulus	Stop stimulus	Start value	Stop value

	Marker	Delta	Stimulus	Response
Win1				
Trace1--S11	1		38.4258GHz	1.25
Win2				
Trace2--S22	1		35.3023GHz	1.19
Win3				
Trace3--S21	1		39.9001GHz	-3.10dB

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