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MVE Low Loss Flexible 50GHzTestCables

MCBL-LL403P.50*PhaseStable

Features

- FREQUENCY: 50GHz
- High Flexibility
- Phase & Loss Stable
- High Matching Cycles, Stainless Steel Connectors
- ROHS compliant

Applications:

- RF&Microwave Test and Calibration
- Research and Development Labs
- Interconnect RF Equipment in Narrow Enviorment
- Military / Commercial Communication

Specifications

CONSTRUCTION		
ITEM	**MATERIAL**	**DIAMETER**
INNER CONDUCTOR	Silver Plated Copper	0.72 ±0.02mm
DIELECTRIC	PTFE	2.21mm
OUTER CONDUCTOR	Silver-plated Copper Foil	2.38mm (2.45mm Max.)
INNER TAPE	PTFE	2.68mm
OUTER SHIELDING	Round Silver-plated Copper	3.14mm (3.25mm Max.)
JACKET	FEP (Blue)	3.60±0.1mm

ELECTRICAL DATA	
ITEM	**SPECIFICATION**
FREQUENCY	50GHz
CHARACTERISTIC IMPEDANCE	50 Ohm
BEND RADIUS(mm)	14.4mm MIN../ 36mm MIN. (Repetition)
OPERATING TEMP	-55℃~ +165℃
SHIELDING EFFECTIVENESS	Typically <-90 dB
WORKING VOLTAGE	1000V RMS Max.
VELOCITY OF PROPAGATION	74.0 %
WEIGHT(g/m)	34
*OPTION-P (PASHE STABILITY)	± 5° TYP. (P/N# MCBL-LL403P.50)

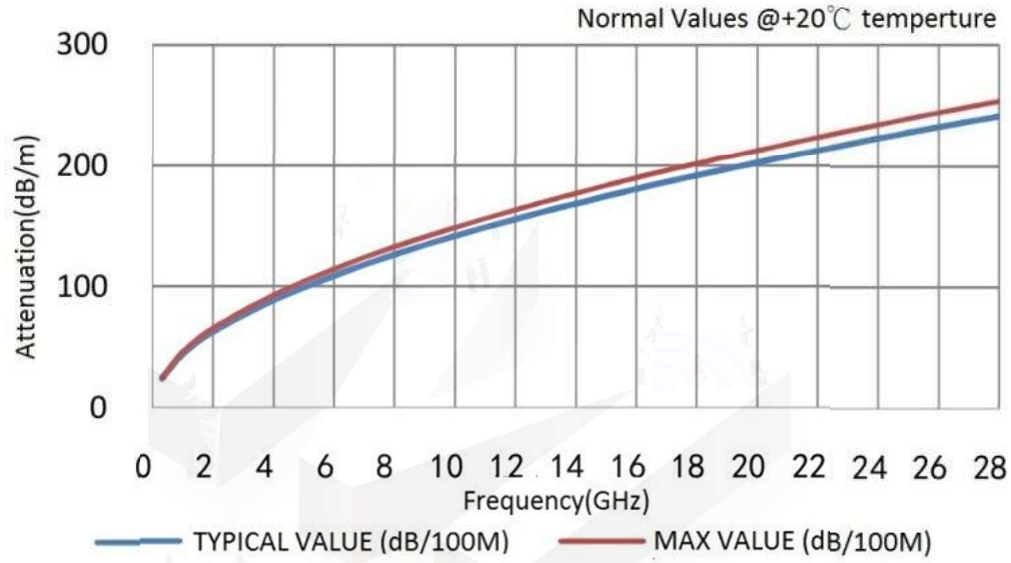
TYP. ATTENUATION(25ºC) and **TYP. AVG. POWER** (40ºC)

Freq.(GHz)	0.3	1.0	2.0	4.0	6.0	8.0	10.0	12.0	16.0	26.5	40.0	50.0
dB/100m	23.9	43.8	62.2	88.5	108.8	126.1	141.5	155.4	180.4	234.8	291.7	328.5
Power kW	0.750	0.409	0.288	0.202	0.165	0.142	0.127	0.115	0.099	0.076	0.061	0.055

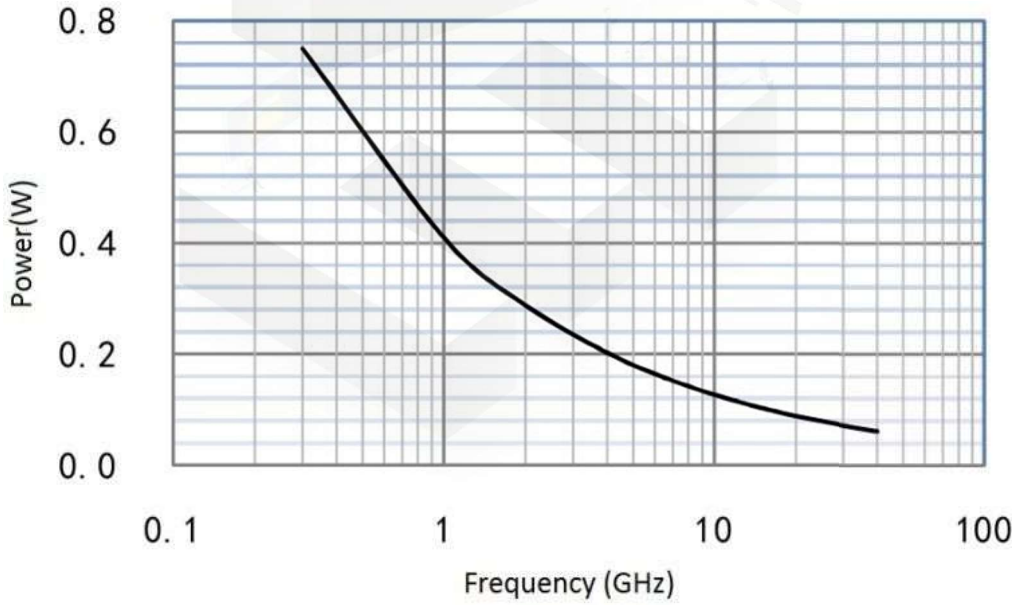
K1= 1.3707349
K2= 0.0004400
Equation＝ K1*√FMhz+K2*FMHz

Systems Interconnect

Cable Attenuation



Average Power



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

RoHS

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Cable Assembly Part Number

MVE PART NUMBER	CONECTOR 1	CONNECTOR 2	LENGTH(cm)	FREQUENCY (GHz)	VSWR
120120.LL403P.XXH	2.4mm Male	2.4mm Male	15, 30, 50, 60, 90, 100	50	1.30
120120.LL403P1.XXH	2.4mm Male	2.4mm Male	15, 30, 50, 60, 90, 100	50	1.30
120122.LL403P.XXH	2.4mm Male	2.4mm Male R/A	15, 30, 50, 60, 90, 100	50	1.40
120130.LL403P.XXH	2.4mm Male	2.4mm Female	15, 30, 50, 60, 90, 100	50	1.40
130130.LL403P.XXH	2.4mm Female	2.4mm Female	15, 30, 50, 60, 90, 100	50	1.40

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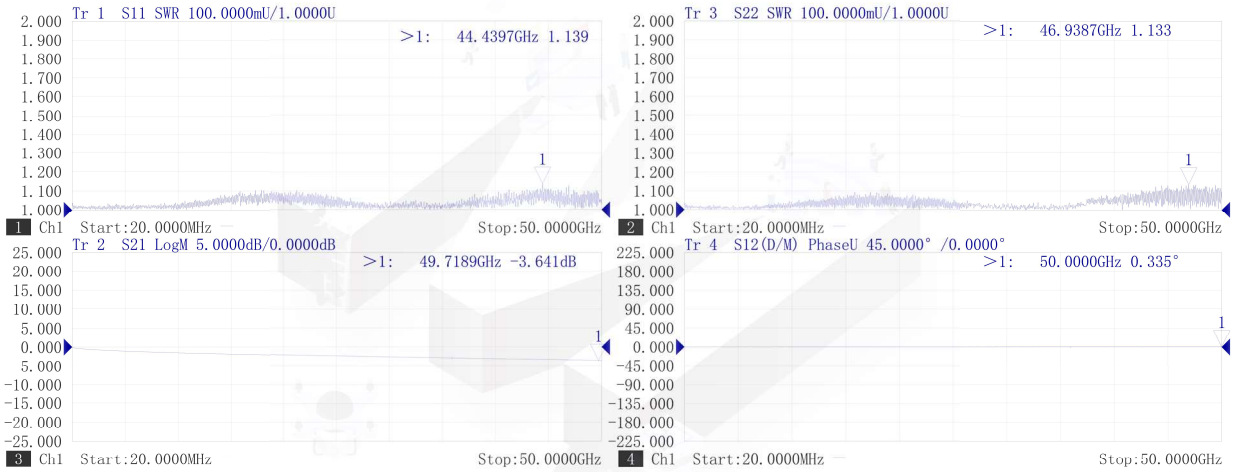
Typical Test Report

PART NUMBER	DESCRIPTION
120120.LL403P.100H	2.4mm Male To 2.4mm Male, DC-50GHz LL403P Cable /L:100cm (VSWR<1.3, IL<3.9dB)



	SweepType	Start Frequency	Stop Frequency	Points	IF BW(Hz)	SweepTime(s)	Port1,2Power(dBm)
Ch1	LIN_SWEEP	0.020000000GHz	50.000000000GHz	1601	10000	1.000000	0.0,0.0

	Marker	Delta	Stimulus	Response
Win1				
Trace1--S11	1		44.4397GHz	1.139
Win2				
Trace3--S22	1		46.9387GHz	1.133
Win3				
Trace2--S21	1		49.7188GHz	-3.641dB
Win4				
Trace4--S12	1		50.0000GHz	0.335°

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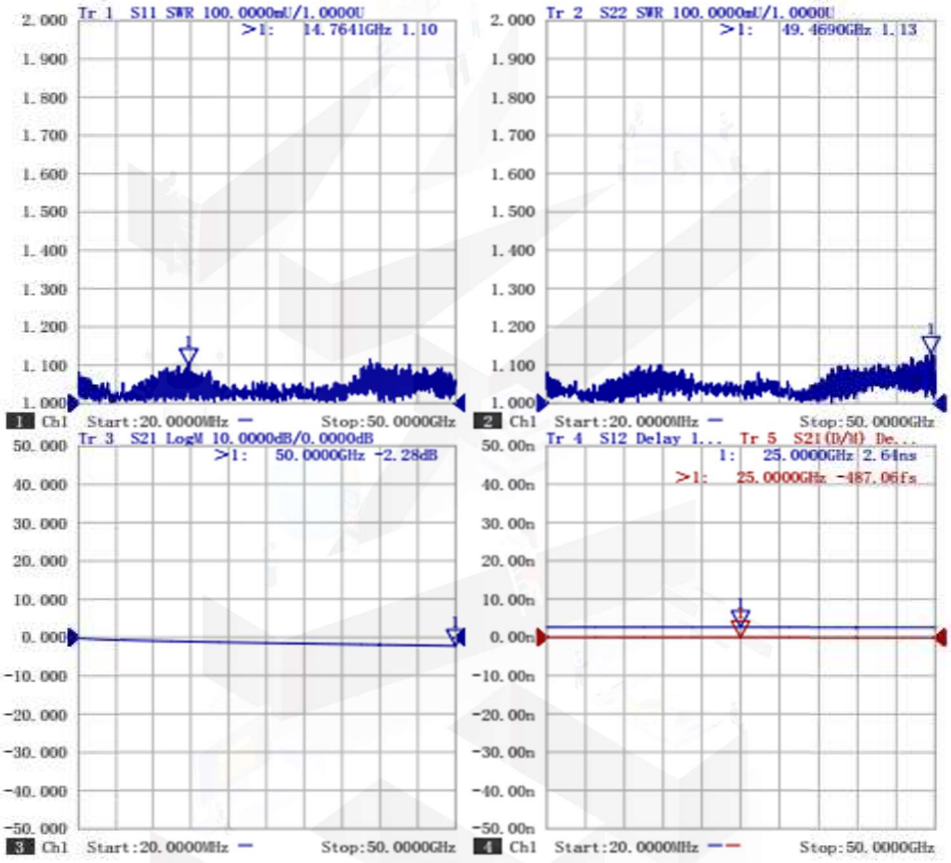
PART NUMBER	DESCRIPTION
120120.LL403P1.60H	2.4mm Male To 2.4mm Male, DC-50GHz LL403P Cable / L:60cm (VSWR<1.3, IL<2.7dB)



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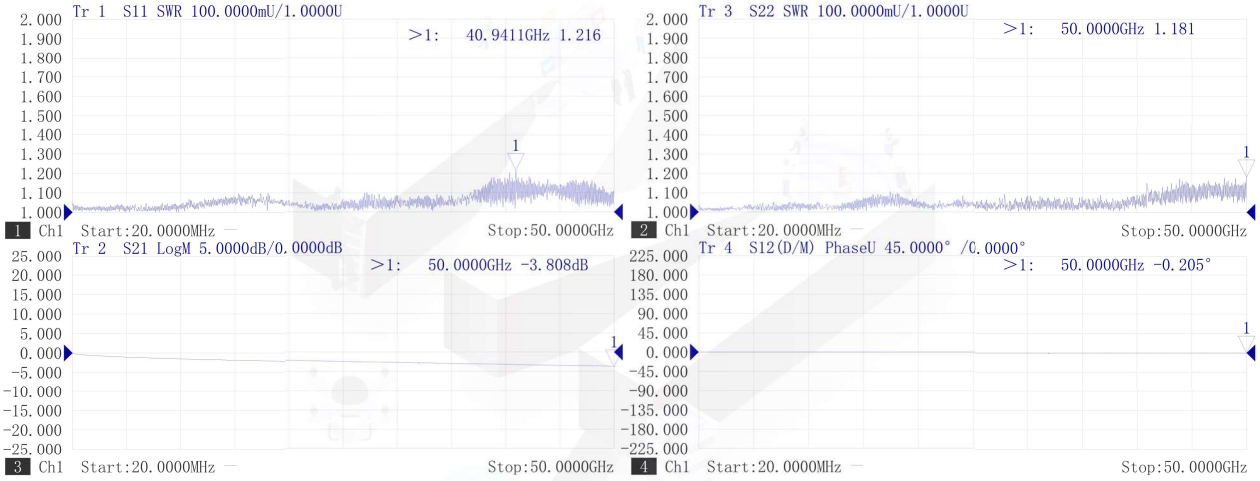
PART NUMBER	DESCRIPTION
120130.LL403P.100H	2.4mm Male To 2.4mm Female, DC-50GHz LL403P Low Loss, Phase Stable Cable/L:100cm/VSWR<1.3, I.L<3.86dB



	SweepType	Start Frequency	Stop Frequency	Points	IF BW(Hz)	SweepTime(s)	Port1,2Power(dBm)
Ch1	LIN_SWEEP	0.020000000GHz	50.000000000GHz	1601	10000	1.000000	0.0,0.0

	Marker	Delta	Stimulus	Response
Win1				
Trace1--S11	1		40.9411GHz	1.216
Win2				
Trace3--S22	1		50.0000GHz	1.181
Win3				
Trace2--S21	1		50.0000GHz	-3.808dB
Win4				
Trace4--S12	1		50.0000GHz	-0.205°

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