

MVE Low Loss Flexible

MCBL-LL407.XX

Phase stable Coax Cable



Specifications

Features

- Ultra Low Loss, Excellent Temp Phase Stable
- 81%Vp PTFE Tape + SPC Foil
- Equivalent to cnx3507
- Replace to UFB142A, HF130,IW1401

Applications

- Interconnect System
- Wireless
- Rotary Joint
- Antenna Seeker

CONSTRUCTION

ITEM	MATERIAL	DIAMETER(mm)	Tolerance(mm)
INNER CONDUCTOR	Silver Plated Copper	0.91	±0.03
DIELECTRIC	LD PTFE	2.48	--
OUTER CONDUCTOR	Silver-plated Copper Foil	2.70	2.75 Max
INNER LAYER	--	2.90	--
OUTER SHEILD	Silver-plated Copper	3.30	--
JACKET	FEP (Clean / Orange)	3.80	±0.10

ELECTRICAL DATA

MIN. BEND RADIUS :Installation	18mm
MIN. BEND RADIUS: Repeated	36mm
WEIGHT (g/m)	35
OPERATING TEMP	-55°C ~ +200°C
TEMP STORAGE	-65°C ~ +200°C

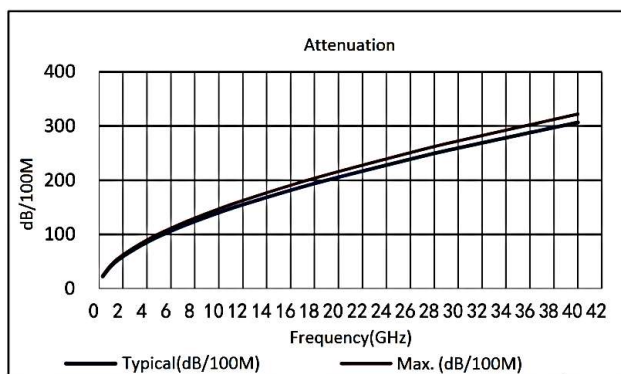
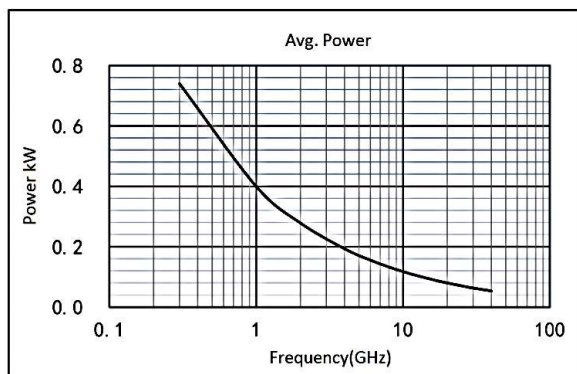
MECHANICAL DATA

FREQUENCY	40 GHz
IMPEDANCE	50 Ohm
VELOCITY OF PROPAGATION	81 %
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	18	26.5	30	40
dB/100m	22.33	41.37	59.29	85.42	106.10	123.96	140.01	154.77	193.99	241.64	259.53	306.88
Power kW	0.740	0.399	0.279	0.193	0.156	0.133	0.118	0.107	0.085	0.068	0.64	0.054

$K1 = 1.2657000$ $K2 = 0.0013435$ Equation = $K1 \cdot \sqrt{FMHz} + K2 \cdot FMHz$





Cable Assembly Part Number

MVE PART NUMBER	CONNECTOR 1	CONNECTOR 2	LENGTH(cm)	Operating Frequency (GHz)	VSWR
140140.LL407.30	2.92mm MALE	2.92mm MALE	30	40.00	1.30
140140.LL407.60	2.92mm MALE	2.92mm MALE	60	40.00	1.30
140140.LL407.100	2.92mm MALE	2.92mm MALE	100	40.00	1.30
140140.LL407.150	2.92mm MALE	2.92mm MALE	150	40.00	1.30
140140.LL407.200	2.92mm MALE	2.92mm MALE	200	40.00	1.30
140140.LL407.500	2.92mm MALE	2.92mm MALE	500	40.00	1.30
150150.LL407.40	2.92mm FEMALE	2.92mm FEMALE	40	40.00	1.30
280280.LL407.60	SMA MALE S/T	SMA MALE S/T	60	26.50	1.30
280280.LL407.100	SMA MALE S/T	SMA MALE S/T	100	26.50	1.30
280280.LL407.150	SMA MALE S/T	SMA MALE S/T	150	26.50	1.30
280280.LL407.200	SMA MALE S/T	SMA MALE S/T	200	26.50	1.30
280280.LL407.500	SMA MALE S/T	SMA MALE S/T	500	26.50	1.30

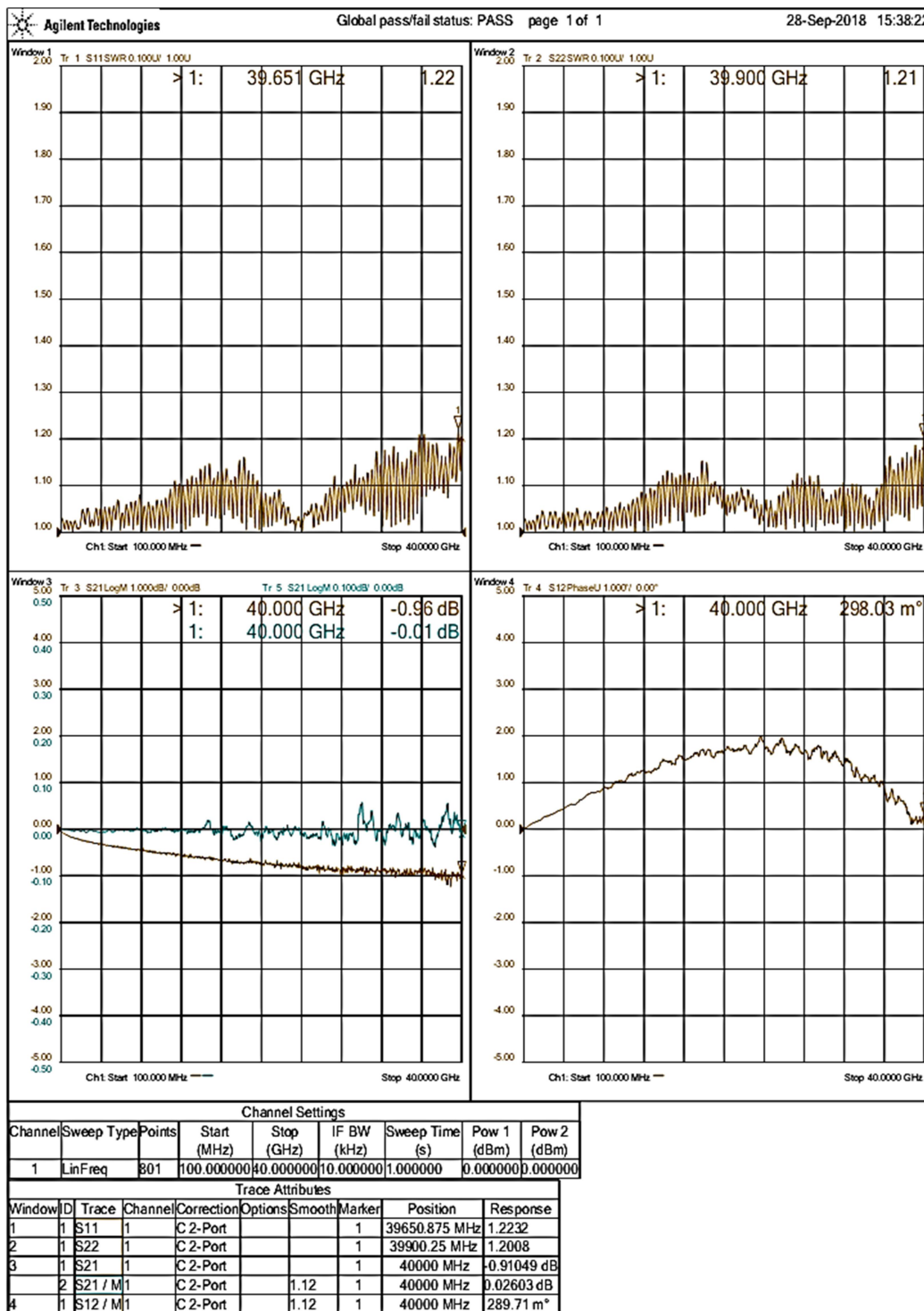
VNOTES:

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

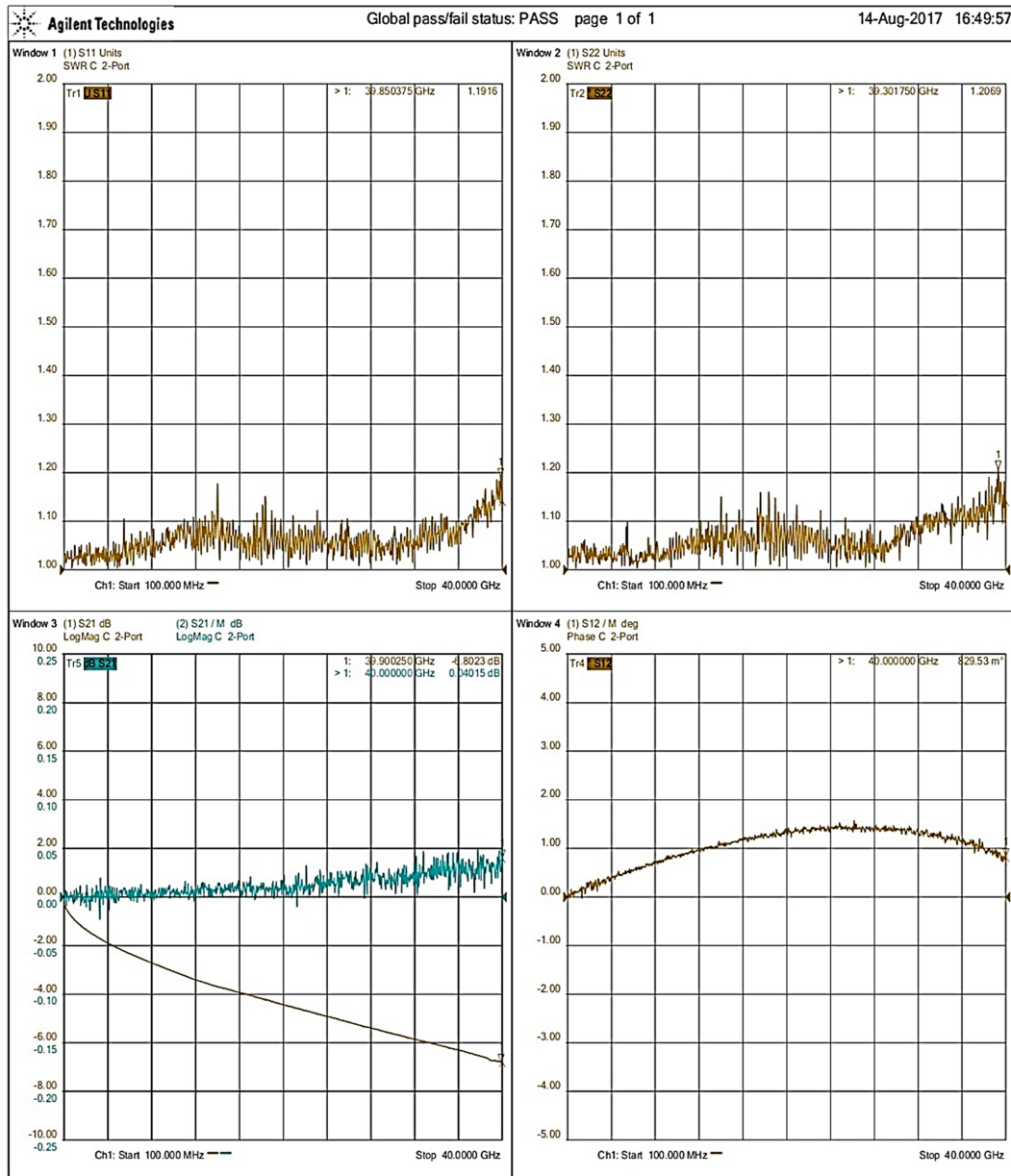


Typical Test Result

PART NUMBER	DESCRIPTION
140140.LL407.30	2.92mm Male To 2.92mm Male, DC-40GHz LL407 ((Phase $\leq 6^\circ$, Delay ≤ 4.02 nS/m, Loss stability $\leq \pm 0.1$ dB) Cable/L:30cm



PART NUMBER	DESCRIPTION
140140.LL407.200	2.92mm Male To 2.92mm Male, DC-40GHz LL407 Cable (Phase $\leq 6\pm^\circ$, Delay $\leq 4.02\text{nS/m}$, Loss stability $\leq \pm 0.1\text{dB}$)/L:200cm



Channel Settings									
Channel	Sweep Type	Points	Start (MHz)	Stop (GHz)	IF BW (kHz)	Sweep Time (s)	Pow 1 (dBm)	Pow 2 (dBm)	
1	LinFreq	801	100.000000	40.000000	10.000000	1.000000	0.000000	0.000000	

Trace Attributes								
Window	ID	Trace	Channel	Correction	Options	Marker	Position	Response
1	1	S11	1	C 2-Port		1	39850.375 MHz	1.1916
2	1	S22	1	C 2-Port		1	39301.75 MHz	1.2069
3	1	S21	1	C 2-Port		1	39900.25 MHz	-6.8023 dB
2	2	S21 / M	1	C 2-Port		1	40000 MHz	0.04015 dB
4	1	S12 / M	1	C 2-Port		1	40000 MHz	829.53 m°

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