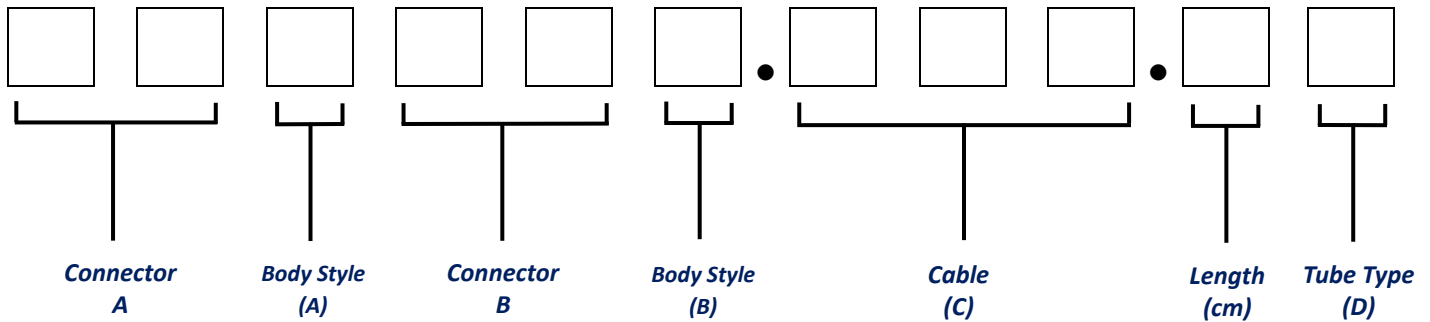


## STANDARD COAXIAL CABLE ASSEMBLIES

MVE standard coaxial cable can provide not only inexpensive cost but also a lot of variety models to meet your needs. The overall diameter of flexible series is including, 2.59mm(RG316) , 2.93mm(RG316 Double Shielding), 0.085inch(F085/SS405), 0.141inch(F141/SS402); Semi-flex series are including: 0.085 inch(SF085/RG405), 0.141inch(SF141/RG402); Semi-rigid series are including: 0.034inch(SR034), 0.047 inch(SR047);0.085 inch(SR085); 0.141inch (SR141). In the meantime, MVE can offer customized services and support the optimization of cable assembly. With MVE service, customize product to let user easy to install. MVE is aimed to provide a wide range of performance coaxial cable for various demands.



No	Conn. A/B
10	1.85mm-M
11	1.85mm-F
12	2.4mm-M
13	2.4mm-F
14	2.9mm-M
15	2.9mm-F
16	3.5mm-M
17	3.5mm-F
18	APC7-M
19	APC7-F
20	BNC-M
21	BNC-F
22	MCX-M
23	MCX-F
24	MMCX-M
25	MMCX-F
26	N-M
27	N-F
28	SMA-M
29	SMA-F
30	SSMA-M
31	SSMA-F
32	TNC-M
33	TNC-F
34	MHF202781-M

No	Conn. A/B
35	75ΩBNC-M
36	75ΩBNC-F
37	MHF20311-M
38	75ΩF-M
39	75ΩF-F
40	MHF20367-M
41	MHF20448-M
42	75ΩN-M
43	75ΩN-F
44	75ΩSMB-M
45	75ΩSMB-F
46	MS147-M
47	MM8430-M
48	SMP-F
49	MHF20428-M
50	SMB-F
51	SMB-M
52	UHF-F
53	UHF-M
54	Fakra SMB-M
55	Fakra SMB-F
56	MM8030-M
57	7/16DIN-M
58	MS180-M
59	MS162-M

No	Conn. A/B
60	CRC9-M
61	MS162-M
62	SSMCX-M
63	SMPM-M
64	FAKRA-M
65	TS9A-M
66	MS156C-M
67	MHF20567-M
68	MS156-M
69	MM8930-M
No	Body Style
0	Standard
1	Reverse
2	Right angle
3	Quick
4	RP-Right angle
5	RP-Quick
6	Bulkhead
7	Opposite Direction R/A
8	2Hole Flange
9	RP-Bulkhead
A	Quick/No hex
B	4Hole Flange

No	Coaxial Cables ©
6	RG-6(U)
58	RG58(U)
59	RG59
081	Mini-coaxial 0.81mm
113	Mini-coaxial 1.13mm
137	Mini-coaxial 1.37mm
142	RG-142
174	RG-174
178	RG-178
214	RG-214
316	RG-316
316D	RG-316 Doubt Shield
400	RG-400
F085	SS405
F141	SS402
SF085	RG405
SF141	RG402
SF085JB	RG405(Blue Jacket)
SF141JB	RG402( Blue Jacket)
SPF085	SFL405
SPF141	SFL402
SR034	Semi-rigid 034
SR047	Semi-rigid 047
SR085	Semi-rigid RG405
SR141	Semi-rigid RG402
200LL	200LL,LMR200
400LL	400L,CFD400,LMR400
600LL	600LL,LMR600
2CS	AWG28 x2C
3CS	AWG28 x3C

Code(D)	A	B	C
Tube Type	Brass Tubing	Double Heat-shrink Tubing	Rigid Glued Tubing

# COAXIAL CABLE

## MCBL-316.50

**RG316**  
**MIL-C-17**

### Features

- ✓ Frequency up to 6GHz
- ✓ Low signal attenuation
- ✓ Convenient assembly



### Specifications

CONSTRUCTION		
ITEM	MATERIAL	DIAMETER
CENTER CONDUCTOR	Silver-Coated Copper Clad Steel	0.53 mm
INSULATION	FEP	1.53±0.03mm
BRAID SHIELD(Coverage:95%)	Silver-Coated Copper	1.92±0.05mm
JACKET	FEP	2.53±0.10mm
ELECTRICAL DATA		
ITEM	SPECIFICATION	
CUT-OFF FREQUENCY	6 GHz	
NOM. IMPEDANCE	50 ± 3 Ohms	
NOM. CAPACITANCE	95.8 ± 3 pF/m	
NOM. VEL. OF PROP.	69%	
CONDUCTOR RESISTANCE	302 OHM/KM/20°C MAX.	
INSULATION RESISTANCE	3000 MEGA OHM/KM MIN.	
DIELECTRIC STRENGTH	AC 1.0 KV/Minute	
TEMPTURE	-60°C ~ +200°C	
MAXIMUM ATTENUATION		
FREQUENCY	ATTENUATION (dB/1M)	
1GHZ	1.25	
1.8GHZ	1.51	
2.4GHZ	1.71	
3GHz	1.92	
5.2GHz	3.15	
6GHz	3.44	



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	XX- LENGTH (cm)	FREQUENCY (GHz)	VSWR (TYP.)
200200.316.XX	BNC Male S/T	BNC Male S/T	30, 40, 50, 60, 100	3.0	--
200220.316.XX	BNC Male S/T	MCX Male S/T	30, 40, 50, 60, 100	3.0	--
200280.316.XX	BNC Male S/T	SMA Male S/T	30, 40, 50, 60, 100	3.0	--
222222.316.XX	MCX Male R/A	MCX Male R/A	30, 40, 50, 60, 100	3.0	1.50
222280.316.XX	MCX Male R/A	SMA Male S/T	30, 40, 50, 60, 100	3.0	1.50
222296.316.XX	MCX Male R/A	SMA Female BH	30, 40, 50, 60, 100	3.0	1.50
222299.316.XX	MCX Male R/A	SMA Female(RP) BH	30, 40, 50, 60, 100	3.0	1.50
250280.316.XX	MMCX Female	SMA Male S/T	30, 40, 50, 60, 100	3.0	1.40
280280.316.XX	SMA Male S/T	SMA Male S/T	30, 40, 50, 60, 100	3.0	1.40
280281.316.XX	SMA Male S/T	SMA Male(RP) S/T	30, 40, 50, 60, 100	3.0	1.40
280290.316.XX	SMA Male S/T	SMA Female S/T	30, 40, 50, 60, 100	3.0	1.40
282282.316.XX	SMA Male R/A	SMA Male R/A	30, 40, 50, 60, 100	3.0	1.50
290SXXX.316.XX	SMA Female S/T	Stripped(mm)	30, 40, 50, 60, 100	--	--

### \*Definition of Length: " XX "

Length  $\leq 30$ CM, the length cable is referring to exclude two terminal length of connector.  
Length  $> 30$ CM, the length cable is referring to include two terminal length of connector.

### \*\*Definition of Tolerance

Length  $\leq 10$ cm:  $\pm 0.5$ cm , Length  $\leq 30$ cm:  $\pm 1.0$  cm , Length  $\leq 50$ cm:  $\pm 2.0$  cm ,  
Length  $\leq 100$ cm:  $\pm 2.5$  cm, Length  $> 101$ cm:  $\pm 3.0$ cm

### \*\*\*Estimate of Cable Assembly loss

Cable assembly loss =Connector loss + Assembly loss + Cable loss

Connector Loss:  $0.08 \times \sqrt{\text{Frequency}} \times 2$  ( 2 connectors)

Assembly Loss :  $0.12 \times 2$ (sides)

Cable Loss: per cable attenuation (Max.) \* Cable length

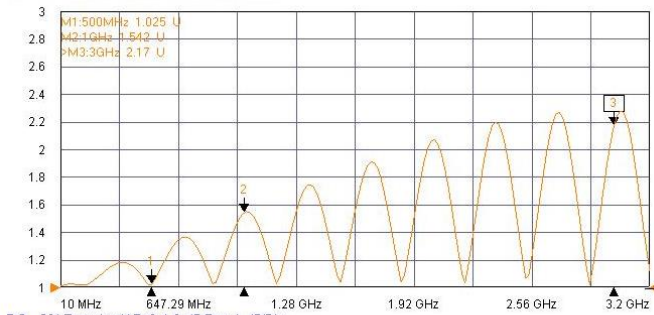
### NOTES:

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

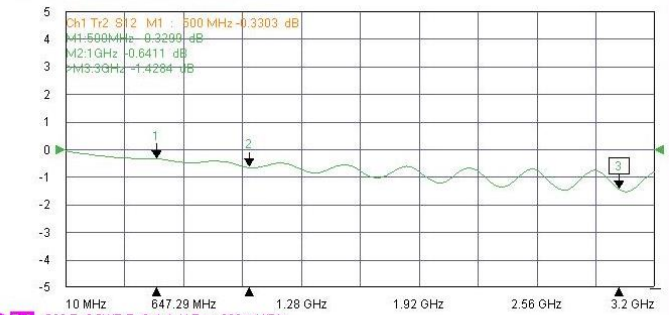
## Typical Test Result

PART NUMBER	DESCRIPTION
200200.316.30C	BNC Male To BNC Male, RG316/L:30cm/ Rigid Glued Tubing

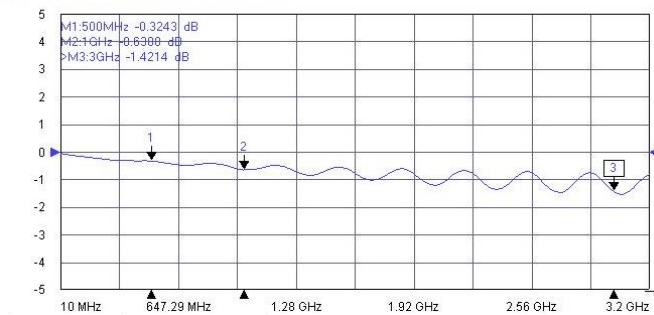
Tr1 S11 Refl SWR RefLvl: 1 U Res: 200 mU/Div



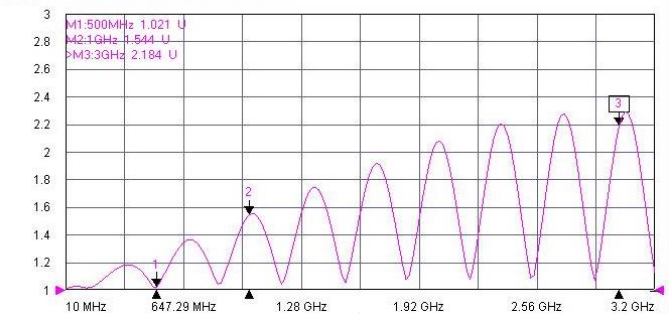
Tr2 S12 Trans LogM RefLvl: 0 dB Res: 1 dB/Div



Tr3 S21 Trans LogM RefLvl: 0 dB Res: 1 dB/Div

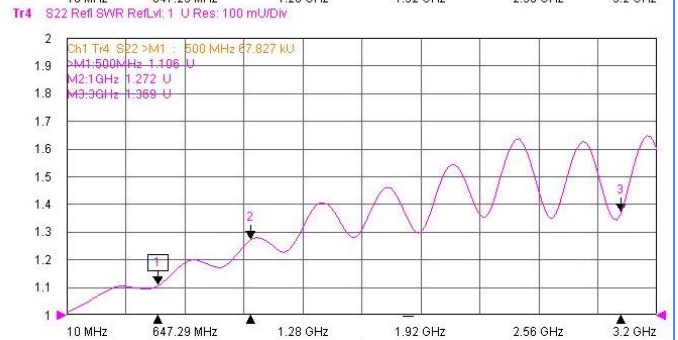
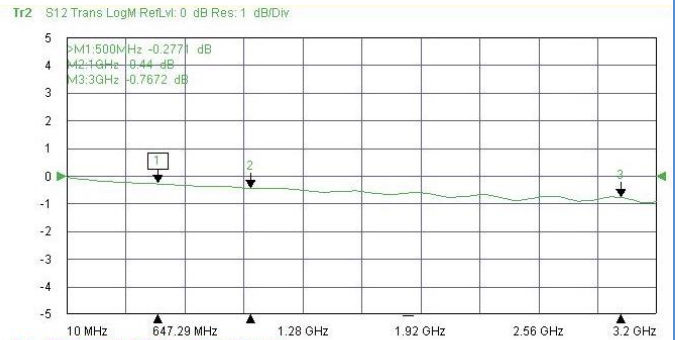


Tr4 S22 Refl SWR RefLvl: 1 U Res: 200 mU/Div



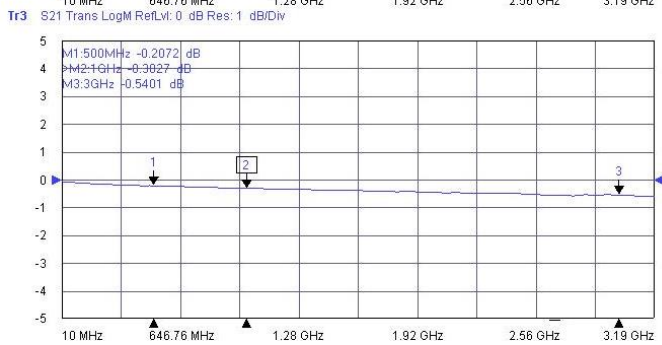
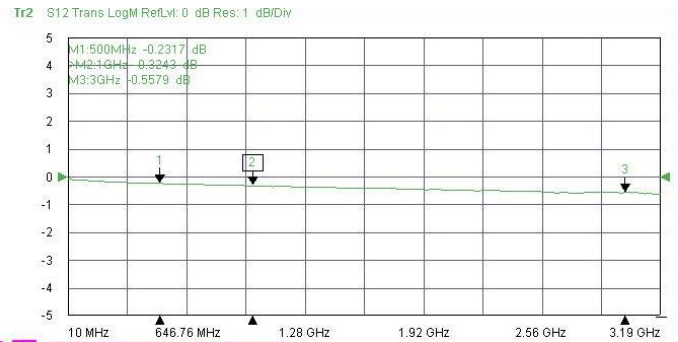
## Typical Test Result

PART NUMBER	DESCRIPTION
200280.316.30C	BNC Male To SMA Male, RG316/L:30cm/ Rigid Glued Tubing



## Typical Test Result

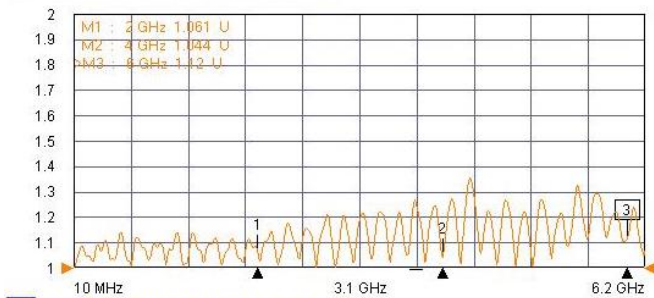
PART NUMBER	DESCRIPTION
222299.316.2044A0	MCX Male R/A To SMA Female Reverse B.H S/T(IP67), RG316/L:204.4mm/Brass Tubing



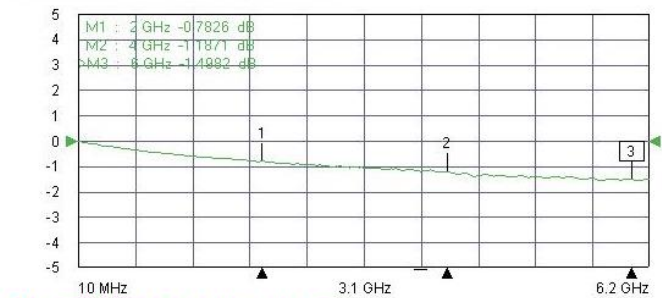
## Typical Test Result

PART NUMBER	DESCRIPTION
250280.316.55A	MMCX Female To SMA Male, RG316/L:55cm/Brass Tubing

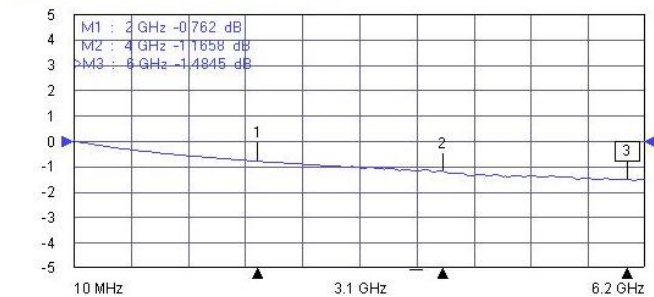
Tr1 S11 Refl SWR RefLvl: 1 U Res: 100 mU/Div



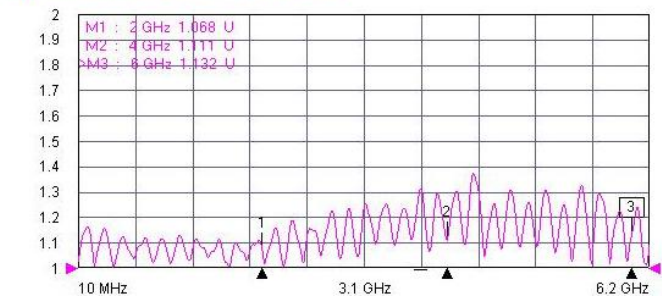
Tr2 S12 Trans LogM RefLvl: 0 dB Res: 1 dB/Div



Tr3 S21 Trans LogM RefLvl: 0 dB Res: 1 dB/Div



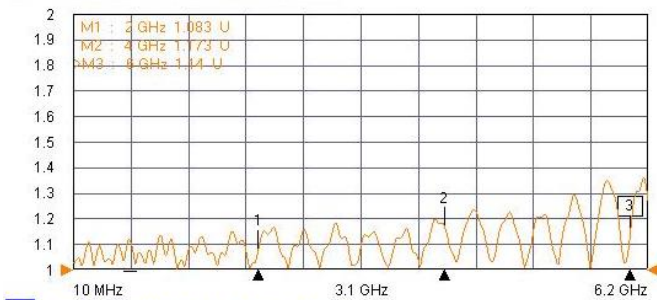
Tr4 S22 Refl SWR RefLvl: 1 U Res: 100 mU/Div



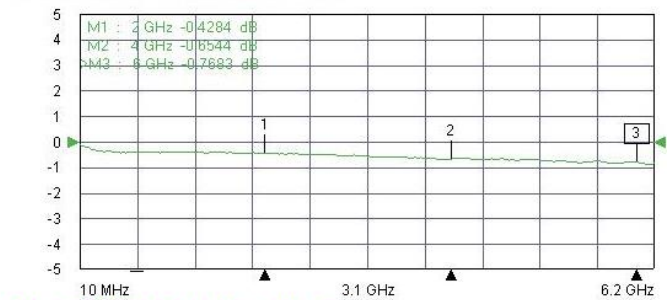
## Typical Test Result

PART NUMBER	DESCRIPTION
280280.316.40A	SMA Male To SMA Male, RG316/L:40cm/Brass Tubing

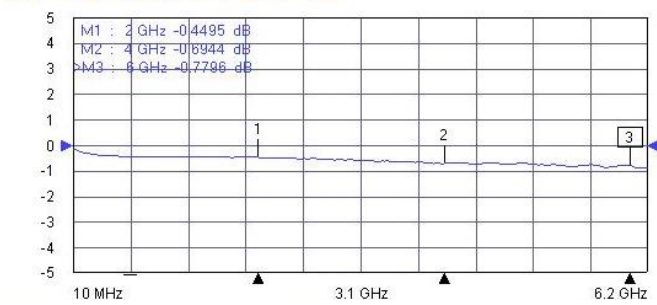
Tr1 S11 Refl SWR RefLvl: 1 U Res: 100 mU/Div



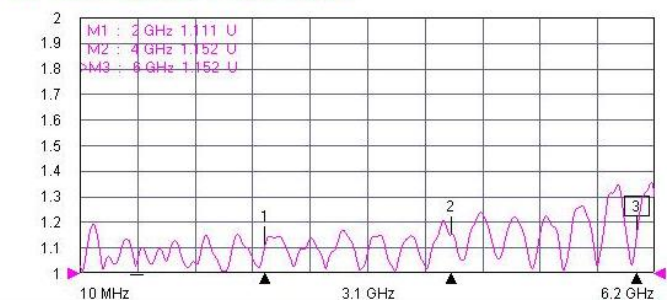
Tr2 S12 Trans LogM RefLvl: 0 dB Res: 1 dB/Div



Tr3 S21 Trans LogM RefLvl: 0 dB Res: 1 dB/Div



Tr4 S22 Refl SWR RefLvl: 1 U Res: 100 mU/Div

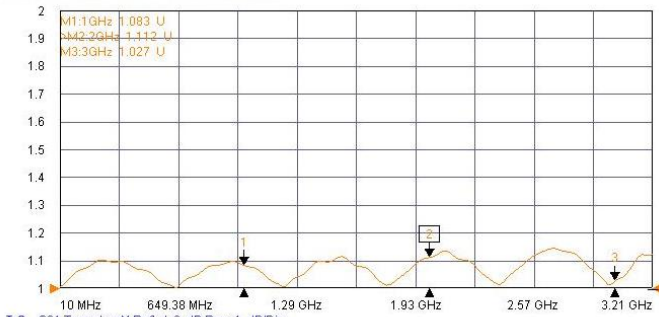




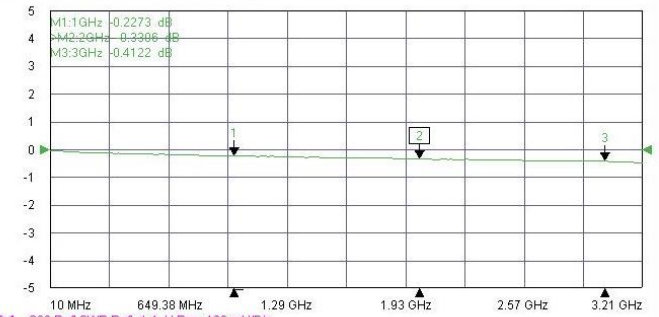
## Typical Test Result

PART NUMBER	DESCRIPTION
280290.316.20A	SMA Male To SMA Female, RG316/L:20cm/Brass Tubing

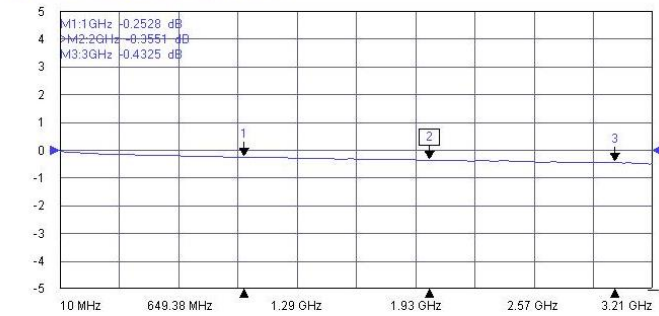
Tr1 S11 Refl SWR RefLvl: 1 U Res: 100 mU/Div



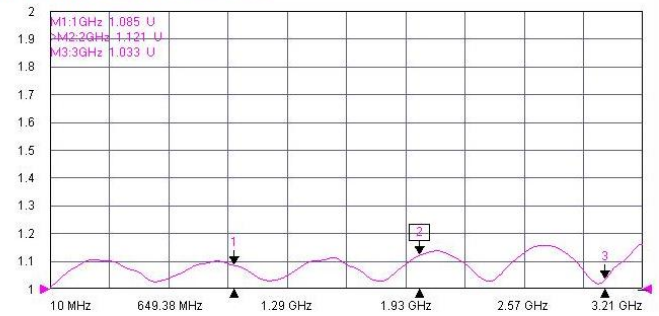
Tr2 S12 Trans LogM RefLvl: 0 dB Res: 1 dB/Div



Tr3 S21 Trans LogM RefLvl: 0 dB Res: 1 dB/Div



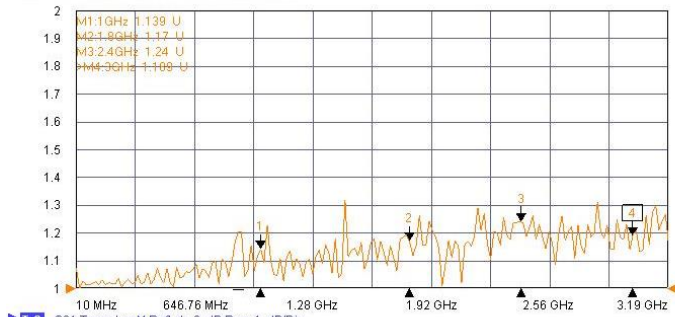
Tr4 S22 Refl SWR RefLvl: 1 U Res: 100 mU/Div



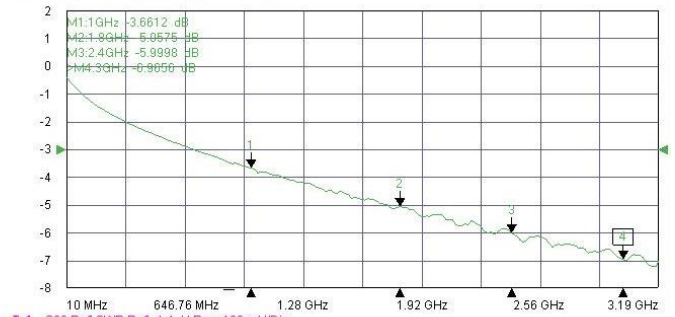
## Typical Test Result

PART NUMBER	DESCRIPTION
282282.316.400A	SMA Male R/A To SMA Male R/A, RG316/L:400cm/Brass Tubing

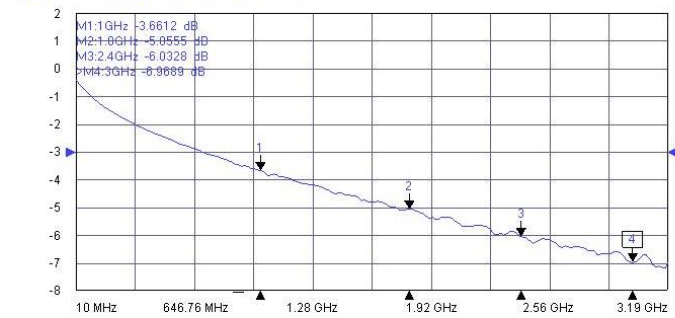
Tr1 S11 Refl SWR RefLvl: 1 U Res: 100 mU/Div



Tr2 S12 Trans LogM RefLvl: -3 dB Res: 1 dB/Div



Tr3 S21 Trans LogM RefLvl: -3 dB Res: 1 dB/Div



Tr4 S22 Refl SWR RefLvl: 1 U Res: 100 mU/Div

