



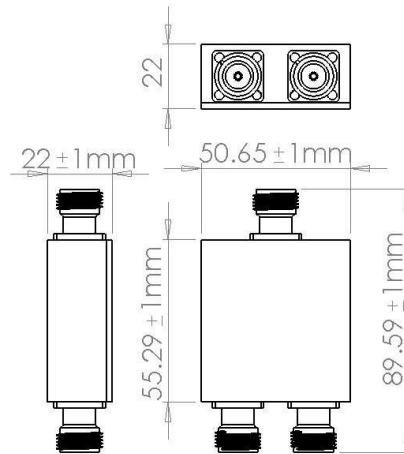
APM CO., LTD.

ASP-016002

100~6000MHz 2-WAY POWER DIVIDER



1.OVERVIEW & SPECIFICATIONS



Electrical Specifications:

Frequency Range :	100~ 6000 MHz
Insertion loss	≤ 2.0 dB
Impedance	50Ω ± 5Ω
VSWR	≤ 2.0
Isolation	≥ 20 dB
Power Handling	50 watts
Phase unbalance	±10 degrees max

Mechanical Specifications

Connector	N Female
Operation Temp	-30°C ~ +60°C
Material	aluminum
Dimension (L*W*H) :	89.6*50.7*22mm
Weight	160g



2. TESTING CONDITION

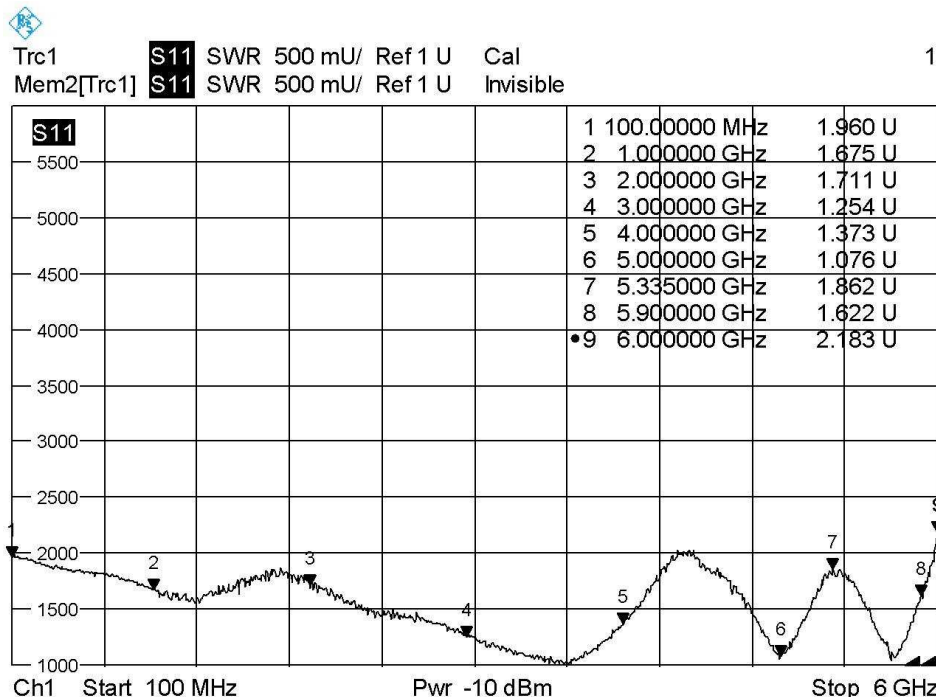
2.1 TEST SETUP

VSWR measurement (S11): Use ROHDE & SCHWARZ ZV8 Network Analyzer with Harbour RG-142 coaxial cable: 1000mm length in free space.

2.1.1 VSWR

The table as below summarizes concern about Return loss measurement according to The frequency band is based on FWS design. The detail be shown as appendix that is from ROHDE & SCHWARZ ZV8 Network Analyzer

VSWR Performance						
Freq(MHz)	1000	2000	3000	4000	5000	6000
Free space	1.67	1.71	1.25	1.37	1.07	2.18



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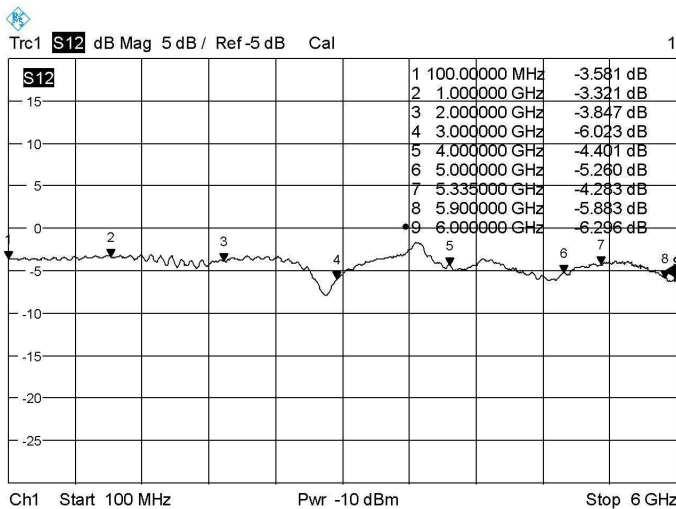


2.1.2 INSERTION LOSS MEASUREMENT

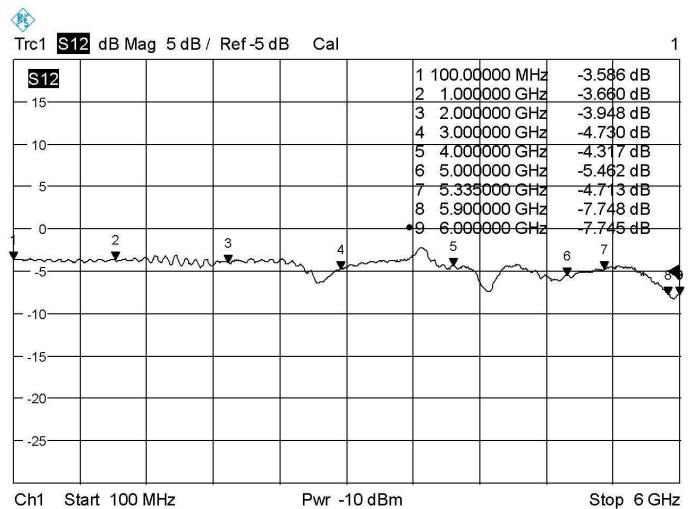
The insertion loss of the power divider was measured by ROHDE & SCHWARZ ZV8

Network Analyzer. The way to measured insertion loss is connect input and output port. The other ports mount with 50 ohm matches respectively. The table as below compared with S_{12} and S_{13} insertion loss measurement according to The frequency band is based on FWS design. The table as below have already reduced 3 dB of measurement

Insertion loss Performance						
Freq(MHz)	1000	2000	3000	4000	5000	6000
Insertion(S_{21}) dB	-3.3	-3.8	-6.0	-4.4	-5.3	-6.3
Freq(MHz)	1000	2000	3000	4000	5000	6000
Insertion(S_{31}) dB	-3.7	-3.9	-4.7	-4.3	-5.4	-7.7



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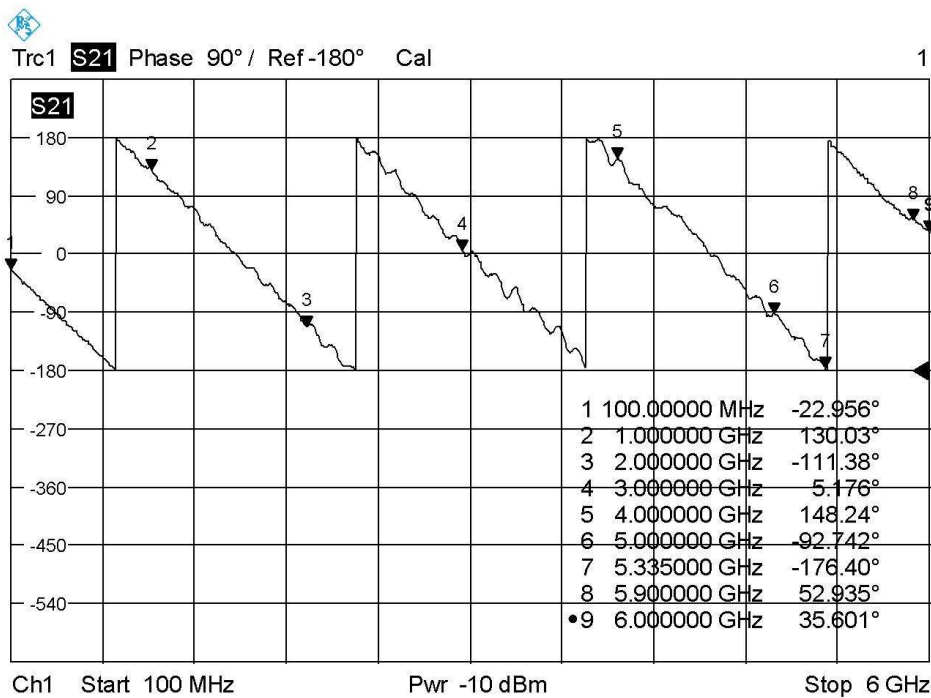
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2.1.3 PHASE MEASUREMENT

The method to measured phase variety of power divider is connect input and output port with ROHDE & SCHWARZ ZV8 Network Analyzer. Other ports mounted 50 ohm matches respectively. The table as below compared with S_{12} and S_{13} phase measurement according to The frequency band is based on FWS design.

Performance						
Freq(MHz)	1000	2000	3000	4000	5000	6000
Degree(S_{21})	130.0°	-111.4°	5.2°	148.2°	-92.7°	35.6°



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