

Absorptive, Broadband MMIC Switch

0.5-40 GHz/SP6T/ 2.92 Female

Model: TLSP6T0.5G40GA

The TLSP6T0.5G40GA is an absorptive MMIC switch with a TTL driver that operates between 0.5-40 GHz. The SP6T switch offers 70 dB port-to-port isolation with a typical switching speed of 10 us. The input and output connectors of the switch are 2.92 female.

Features:

- Ultra Wide Band: 0.5-40GHz
- Insertion Loss: 9.0 dB
- Power Handling : 25 dBm
- High Isolation
- Switch Type: Absorptive

Applications:

- Communication Systems
- Automatic Test Equipment
- Switching Network

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.5-40			GHz
Insertion Loss		9	10	dB
Isolation	60	70		dB
Switch Speed		10		us
Input VSWR		2	3	:1
Output VSWR		2	3	:1
Power Handling			25	dBm
DC Voltage		5		V DC
DC Supply Current		300		mA
Switch type	Absorptive			
Impedance	50			Ohms

Absolute Maximum Ratings :

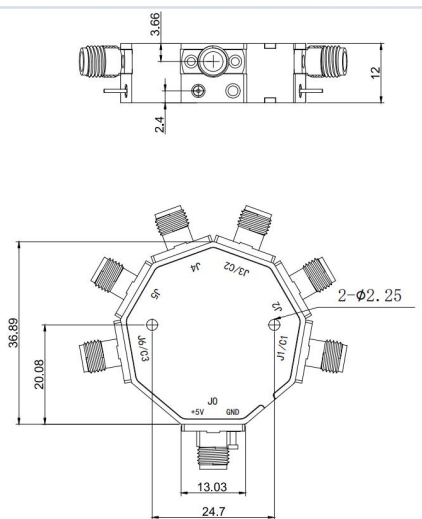
Description	Parameter	Units
Supply Bias Voltage	±5%	V
RF Input Power	25	dBm
ESD sensitivity (Hbm)	Class 0, passed 150V	

Mechanical Specifications:

Description	Parameter	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
Control Bias	Solder Pin	
Size	36.89*36.89*12	mm

Outline Drawing:

Unit:mm



Truth Table			
TTL Control Input			Signal Path State
J1	J3	J6	
0	0	0	J0-J1
0	0	1	J0-J2
0	1	0	J0-J3
0	1	1	J0-J4
1	0	0	J0-J5
1	0	1	J0-J6
1	1	0	OFF

1. Dimensions are in mm [inches]
 2. Tolerances: Outline drawing ± 0.2 [0.008] Hole ± 0.2 [0.008]
- NOTE: ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME

TTL Control Voltages & VDD	
Stage	Bias Condition
VDD	+5V (±5%)
Low (0)	0 to 0.8Vdc
High (1)	+3.3 to +5.0Vdc



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

Environmental Conditions:

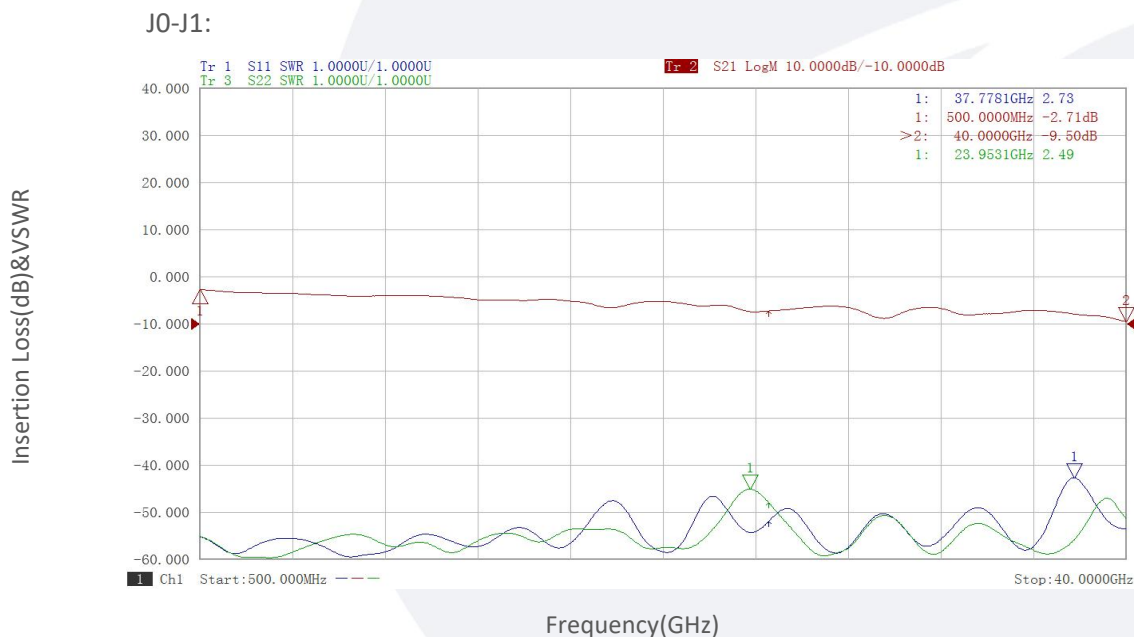
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TLSP6T0.5G40GA	Absorptive,Broadband MMIC Switch 0.5-40 GHz,SP6T,2.92mm Female	Rev.1.1

Typical Performance Data:

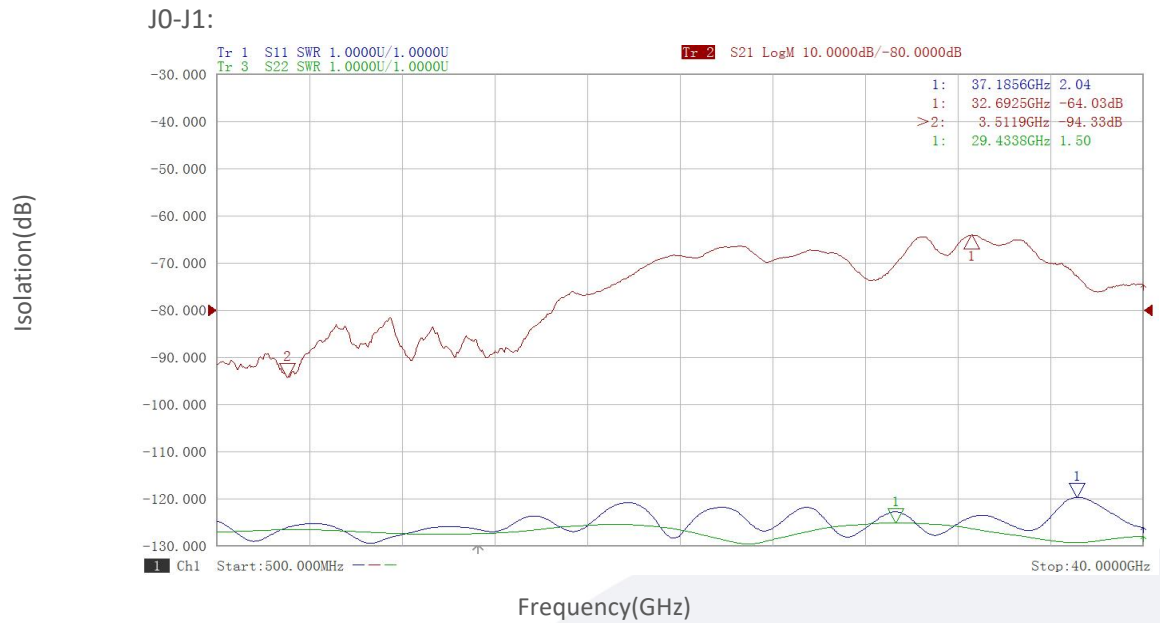
Insertion Loss&VSWR vs Frequency



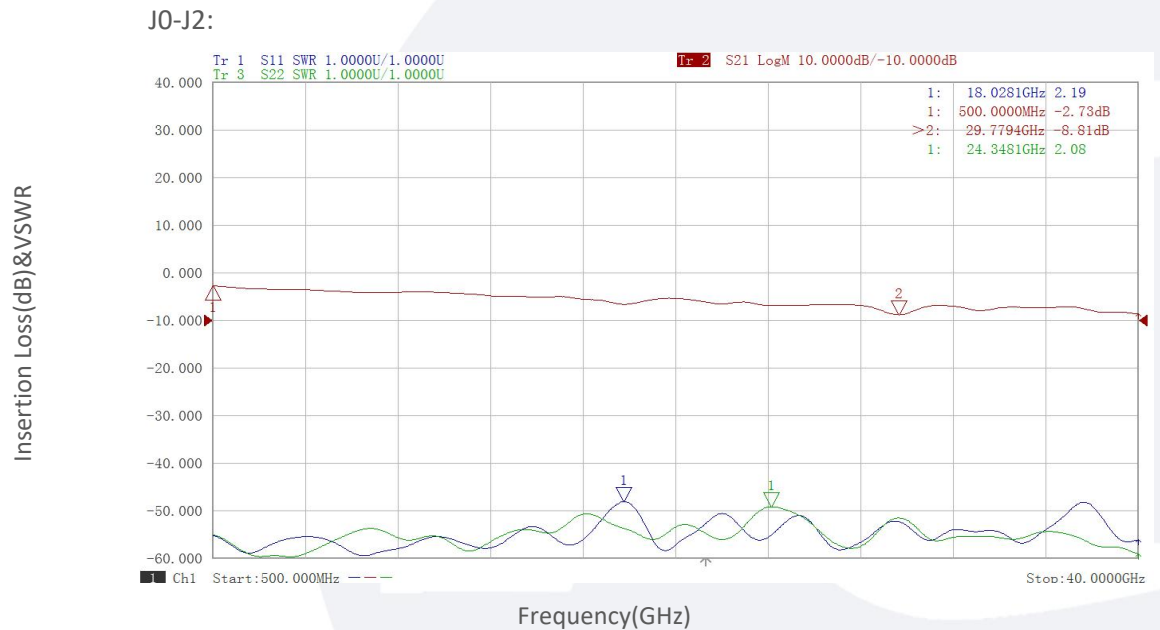
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Isolation vs Frequency



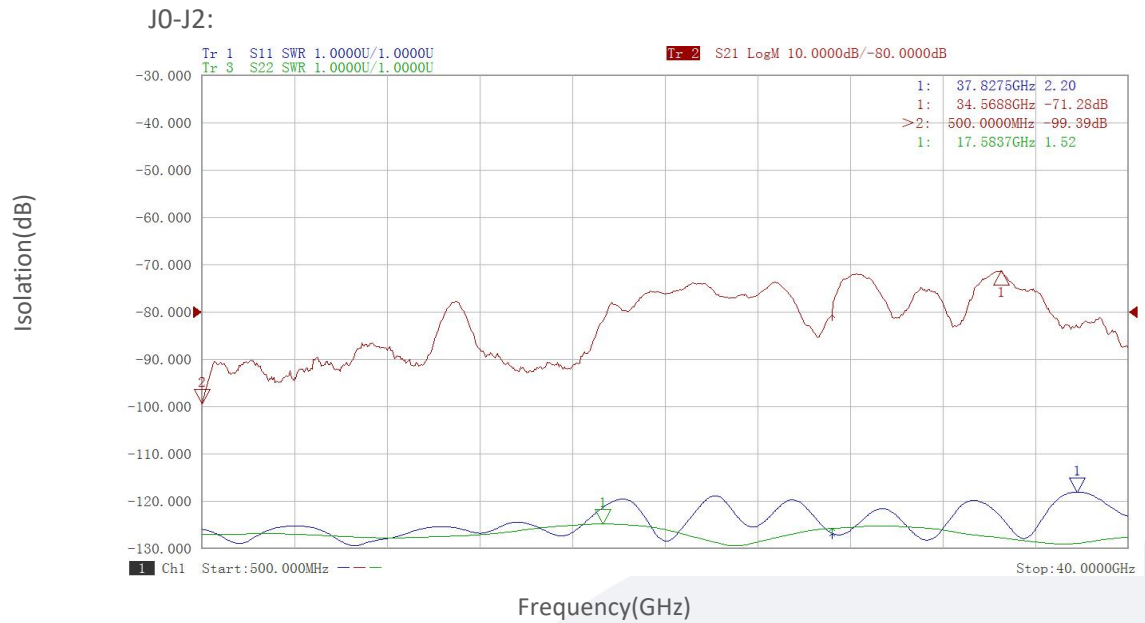
Insertion Loss&VSWR vs Frequency



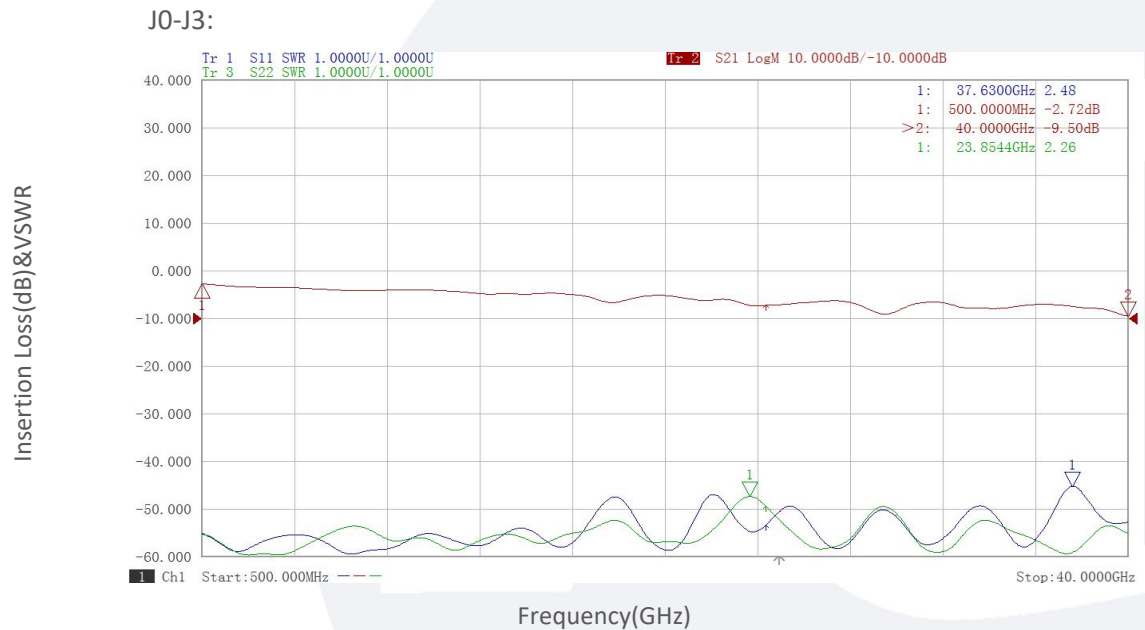
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Typical Performance Data:

Isolation vs Frequency



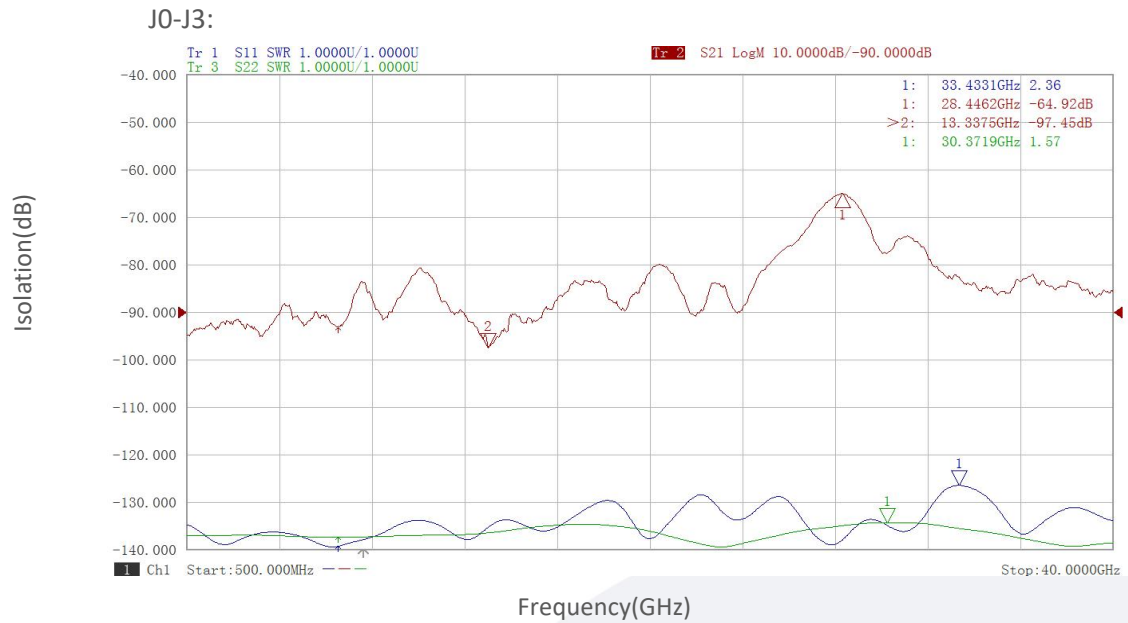
Insertion Loss&VSWR vs Frequency



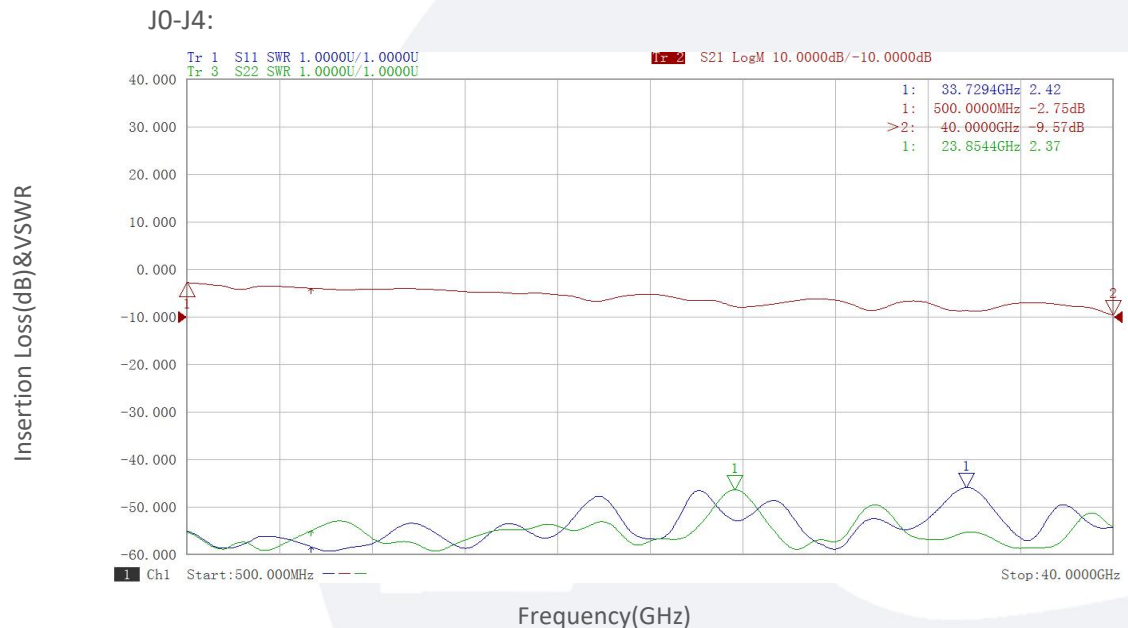
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Typical Performance Data:

Isolation vs Frequency



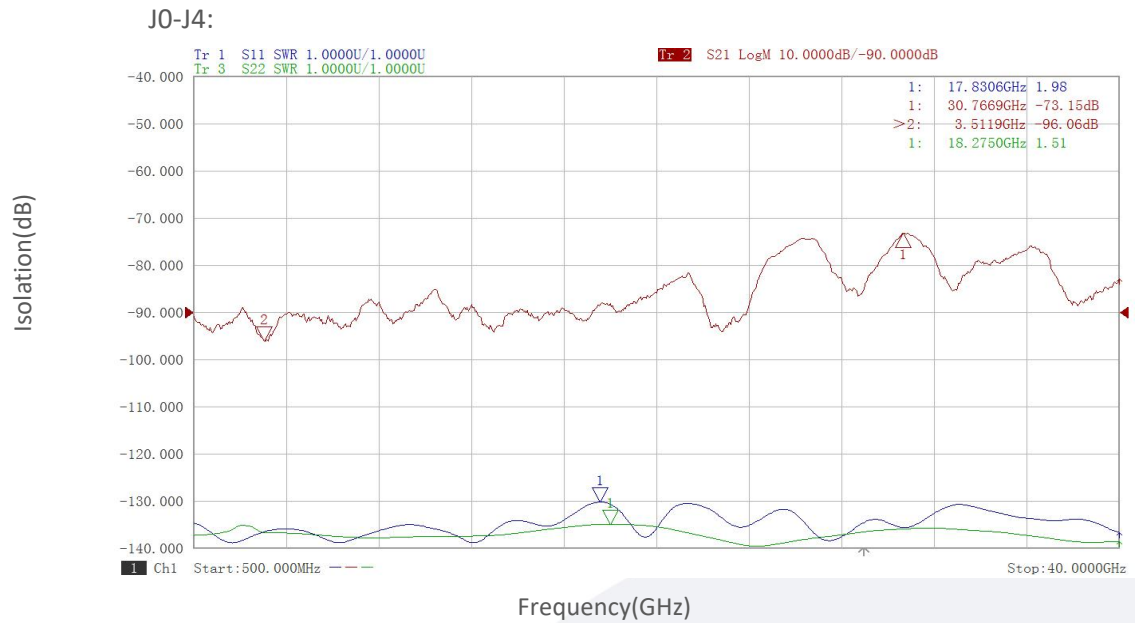
Insertion Loss&VSWR vs Frequency



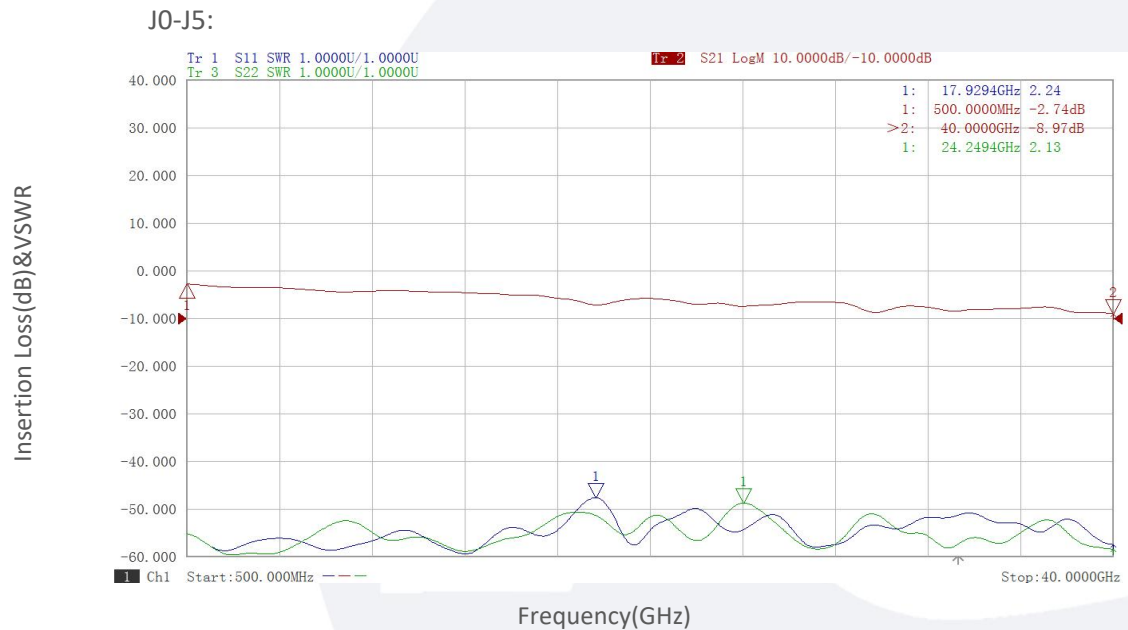
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Typical Performance Data:

Isolation vs Frequency



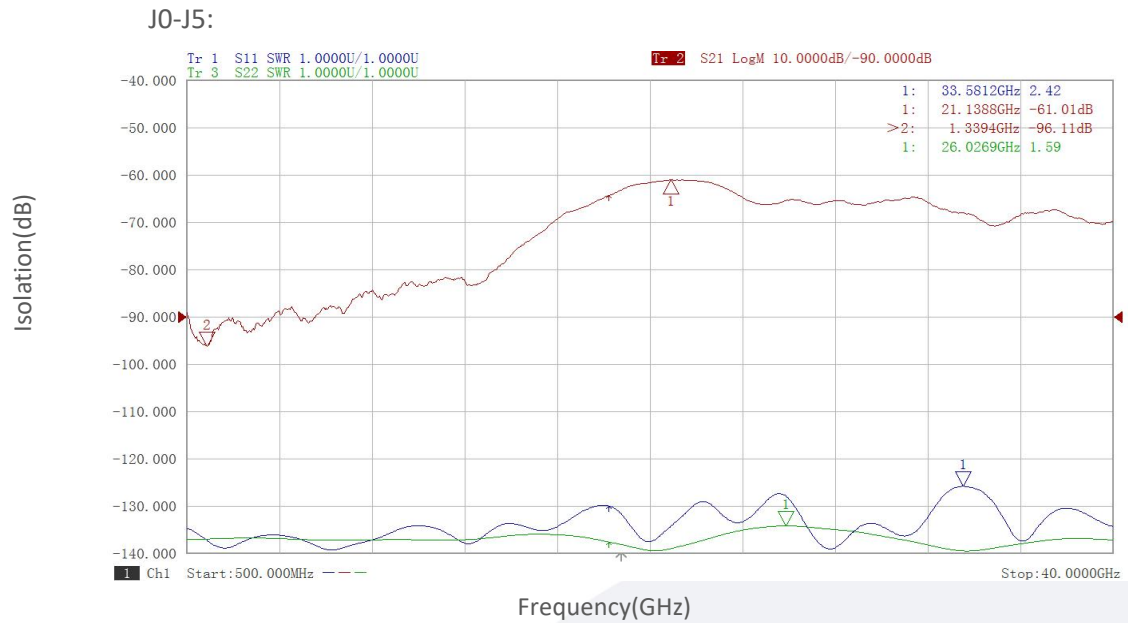
Insertion Loss&VSWR vs Frequency



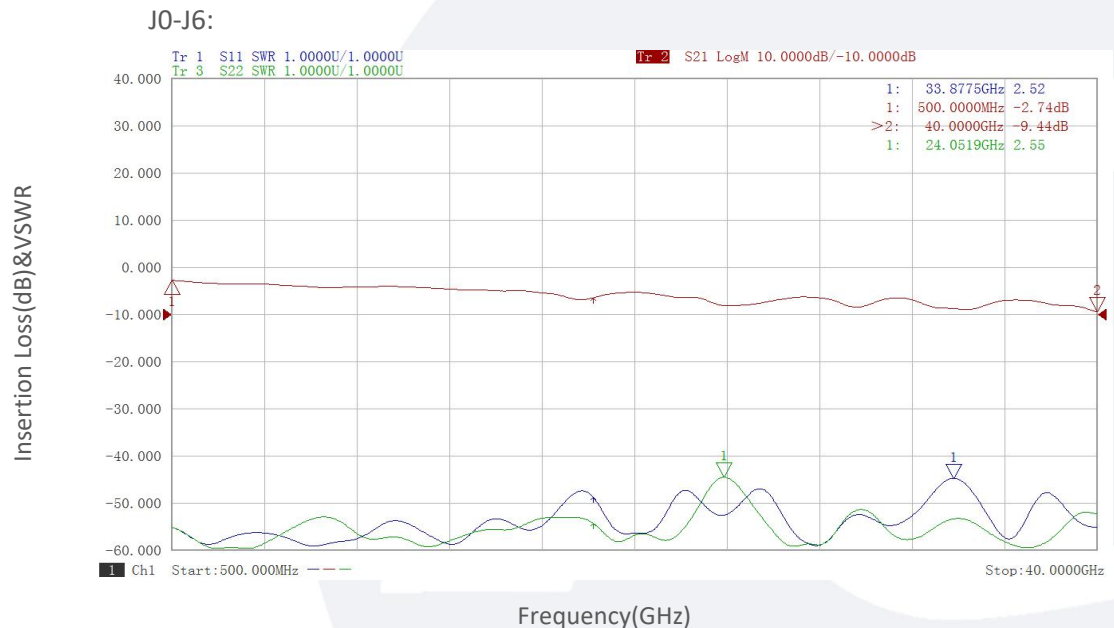
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Isolation vs Frequency



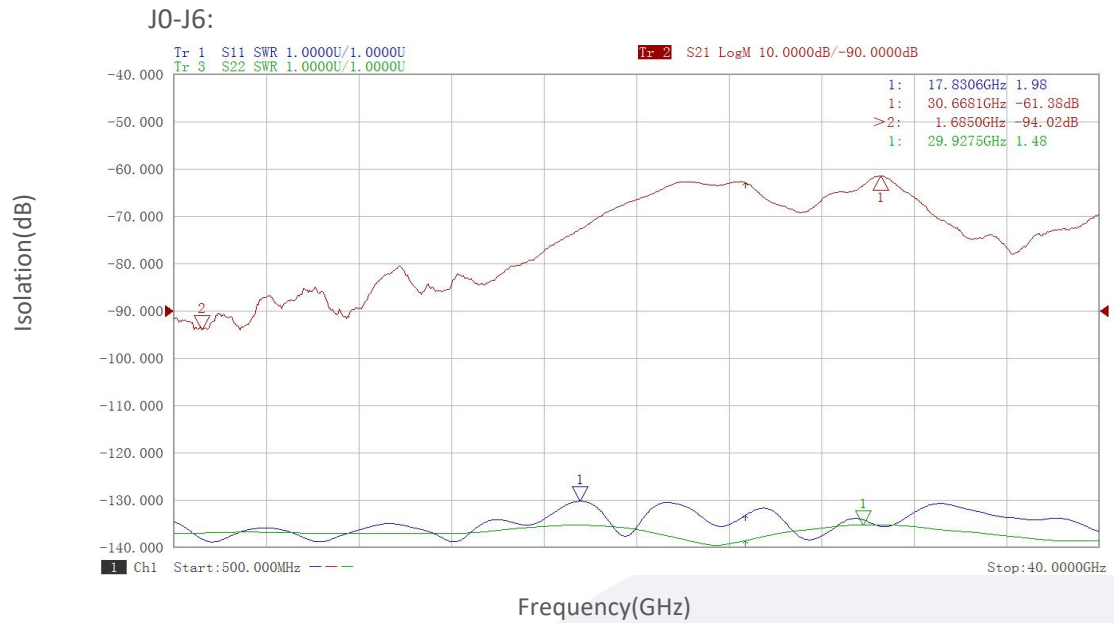
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