

Absorptive, Broadband FET Switch

1-18 GHz/SP8T/ SMA Female

Model: TLSP8T1G18GA

The TLSP8T1G18GA is an absorptive FET switch with a TTL driver that operates between 0.1 and 18 GHz. The SP8T switch offers 70 dB port-to-port isolation with a typical switching speed of 100 ns. The input and output connectors of the switch are SMA female.

Features:

- Ultra Wide Band: 1-18GHz
- Low Insertion Loss: 4.0 dB
- Power Handling : 30 dBm
- High Isolation
- Switch Type: Absorptive

Applications:

- Communication Systems
- Automatic Test Equipment
- Switching Network

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	1-18			GHz
Insertion Loss		4		dB
Isolation	60	70		dB
Switch Speed		100		ns
Input VSWR		2		:1
Output VSWR		2		:1
Power Handling			30	dBm
DC Voltage		+5		V DC
DC Supply Current		500		mA
Switch type	Absorptive			
Impedance	50			Ohms

Absolute Maximum Ratings :

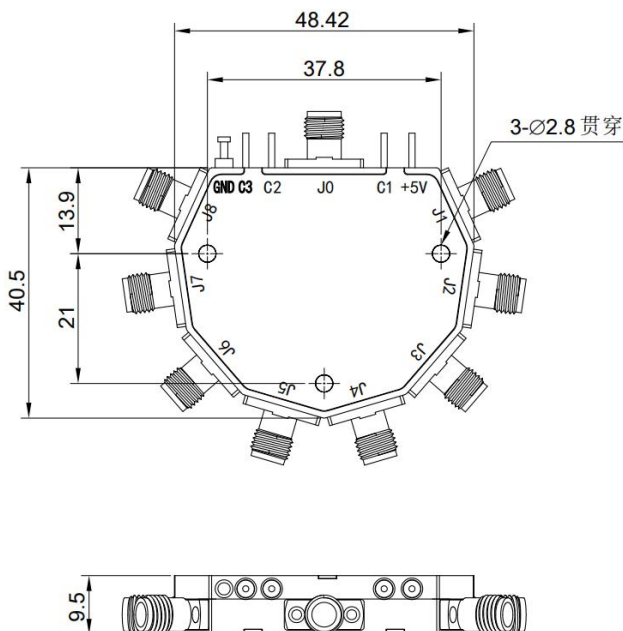
Description	Parameter	Units
Supply Bias Voltage	±5%	V
RF Input Power	30	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

Mechanical Specifications:

Description	Parameter	Units
Input /Output Connector	SMA Female/SMA Female	
Control Bias	Solder Pin	
Size	48.42*40.5*9.5	mm

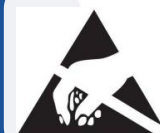
Outline Drawing:

Unit:mm



Truth Table			
TTL Control Input			Signal Path
C3	C2	C1	State
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	J0-J7
1	1	1	J0-J8

TTL Control Voltages &VDD	
Stage	Bias Condition
VDD	+5V (± 5%)
Low (0)	0 to 0.8Vdc
High (1)	2.0 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			

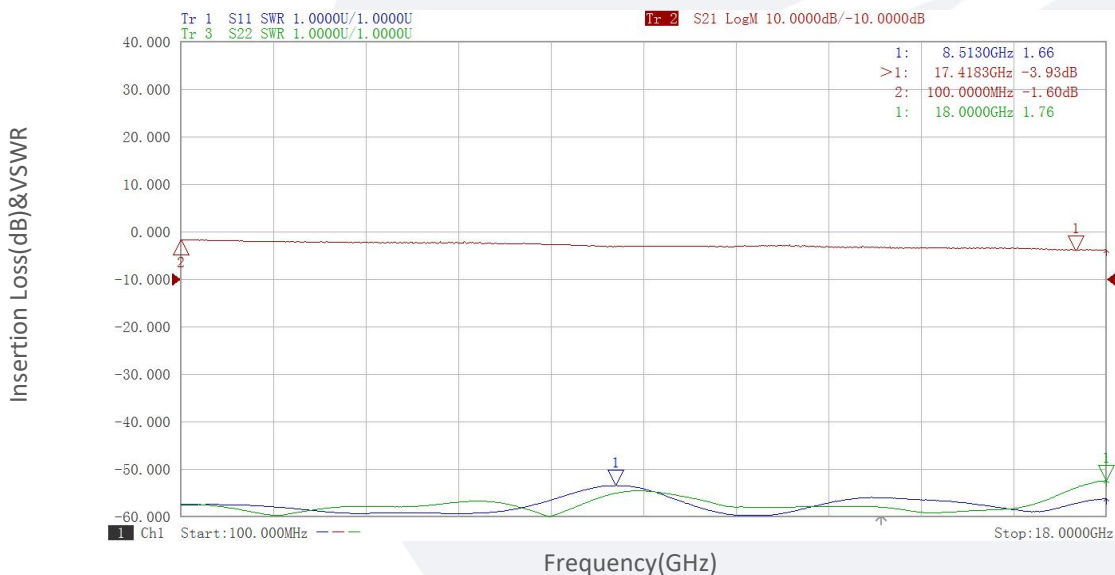
Ordering Information:

Base Number	Description	Revision
TLSP8T1G18GA	Absorptive,Broadband FET Switch 1-18 GHz,SP8T,SMA	Rev.1.1

Typical Performance Data:

Insertion Loss&VSWR vs Frequency

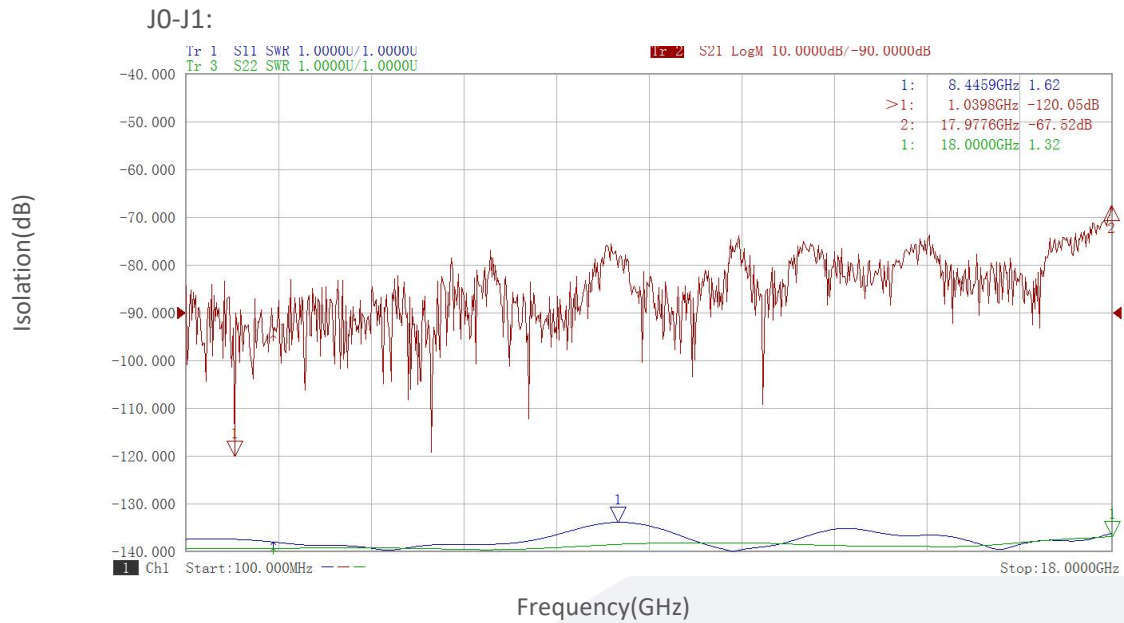
J0-J1:



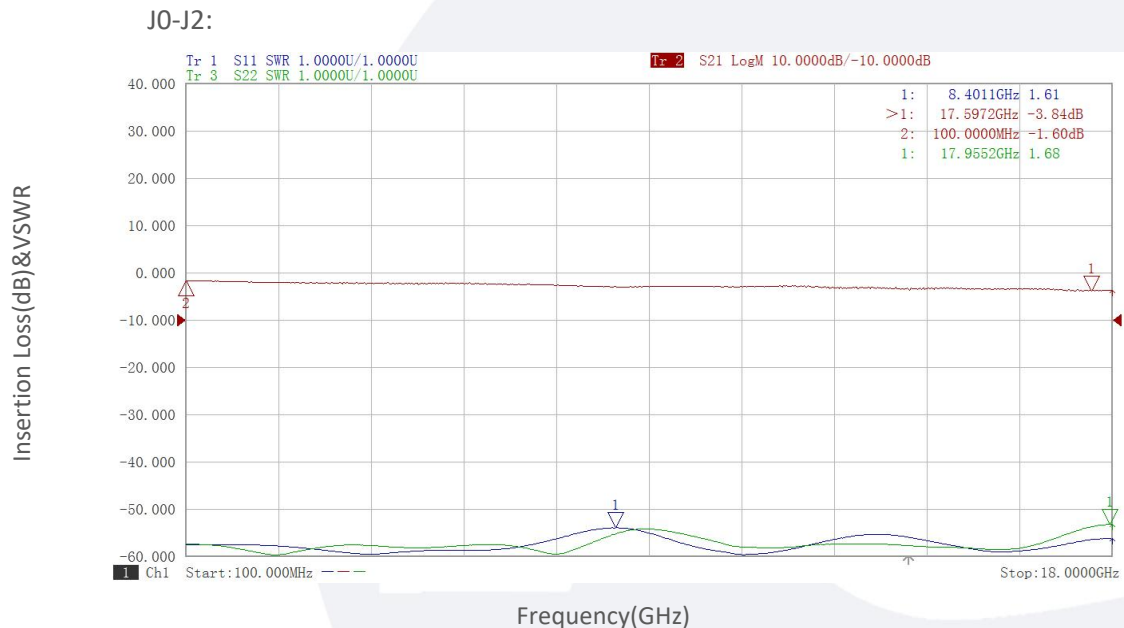
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Isolation vs Frequency



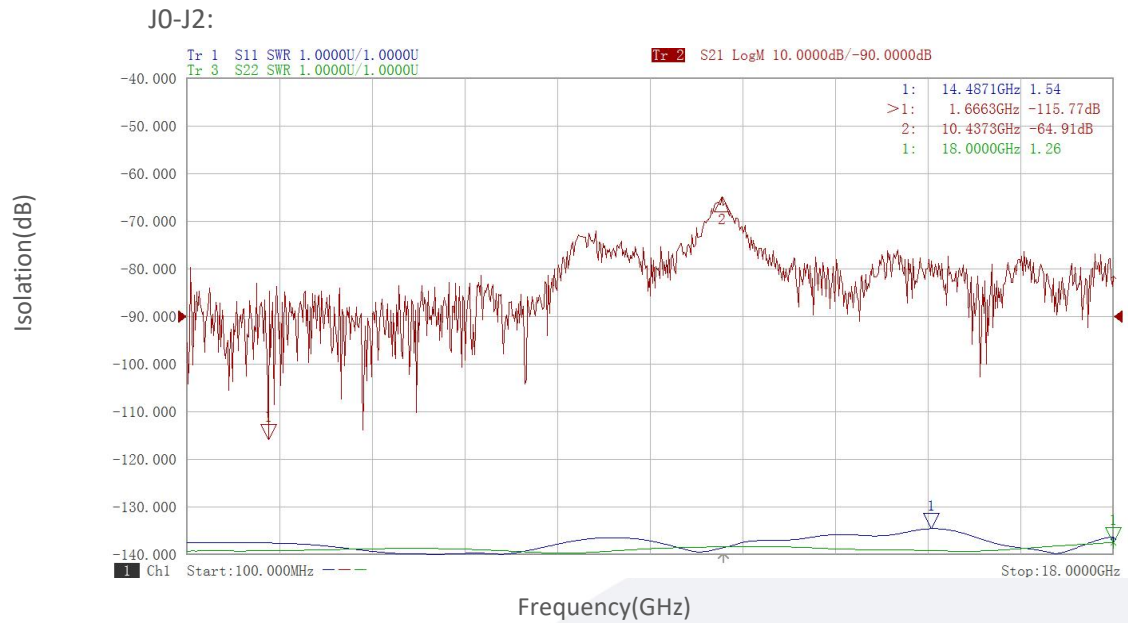
Insertion Loss&VSWR vs Frequency



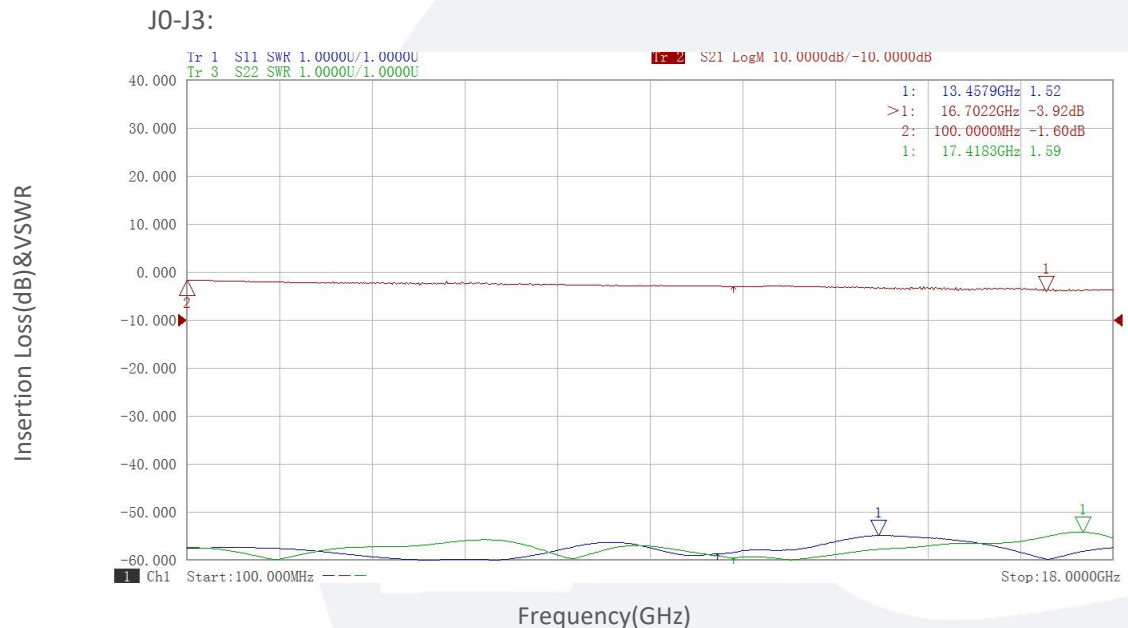
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Typical Performance Data:

Isolation vs Frequency



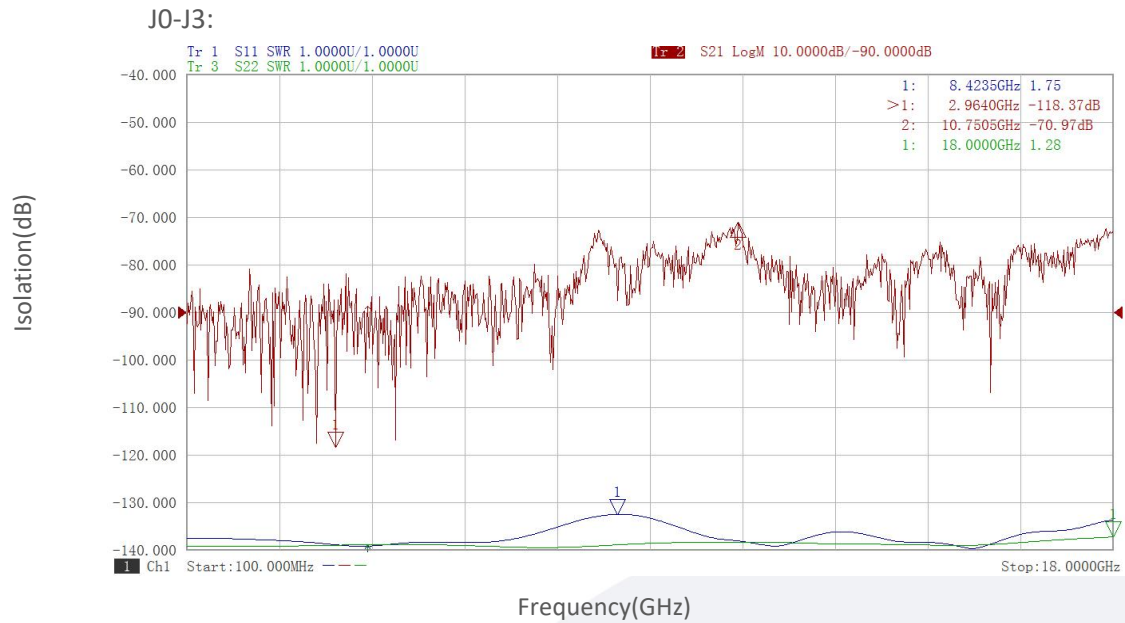
Insertion Loss&VSWR vs Frequency



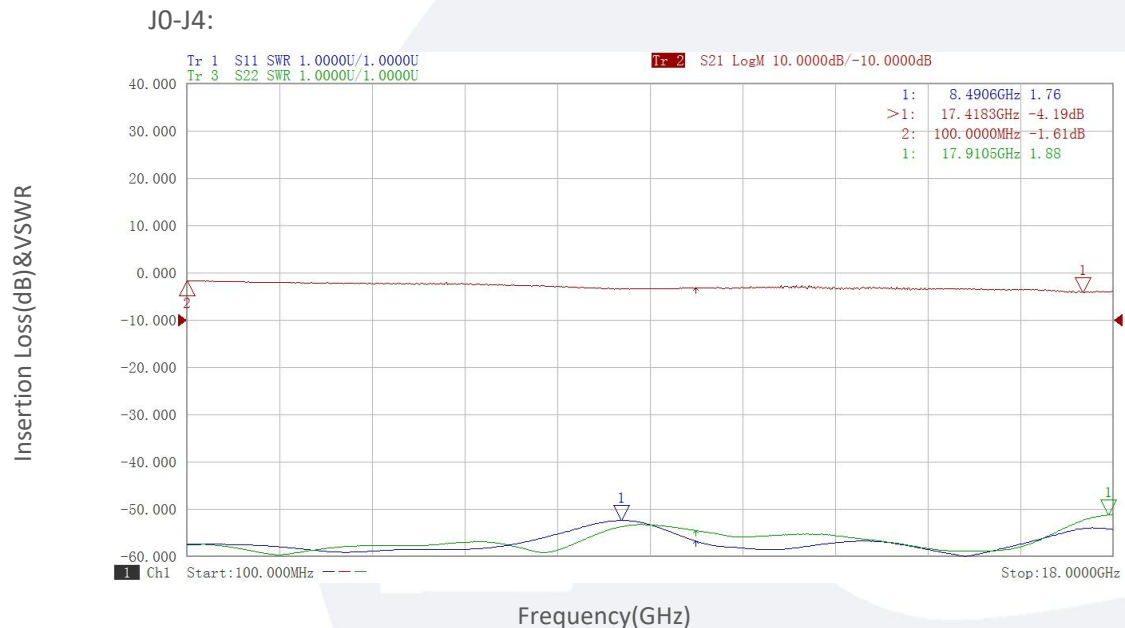
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Typical Performance Data:

Isolation vs Frequency



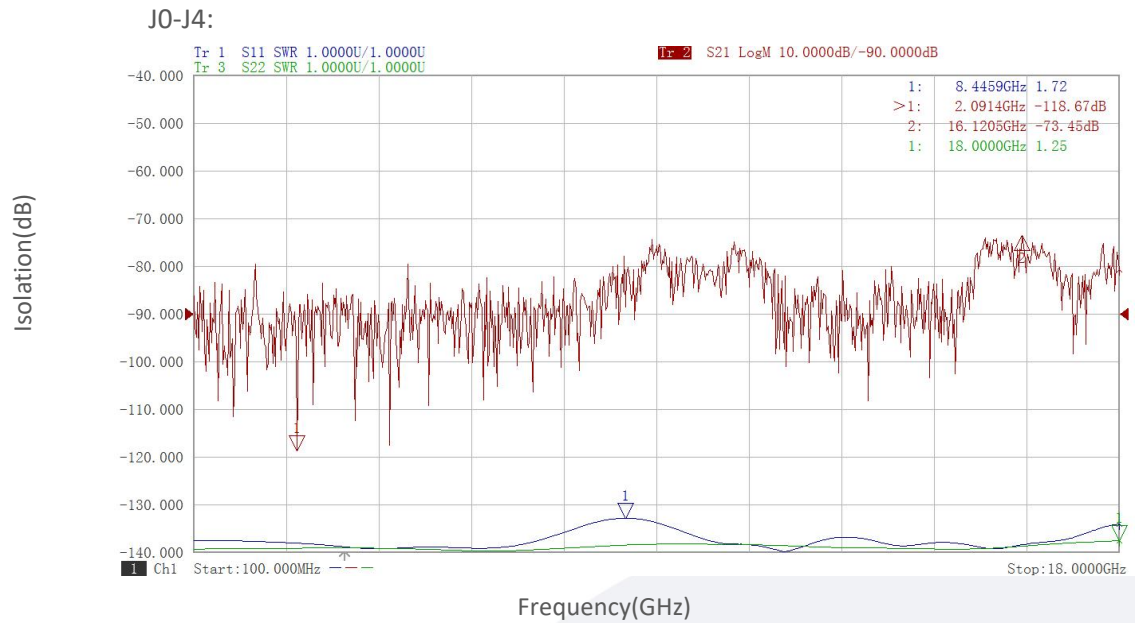
Insertion Loss&VSWR vs Frequency



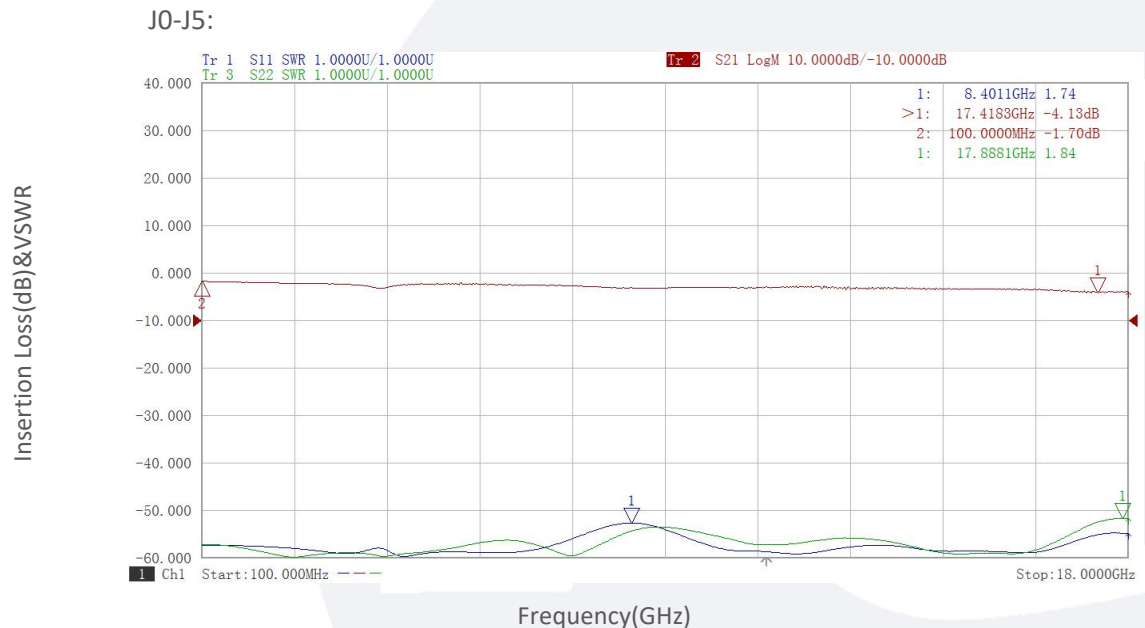
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Typical Performance Data:

Isolation vs Frequency



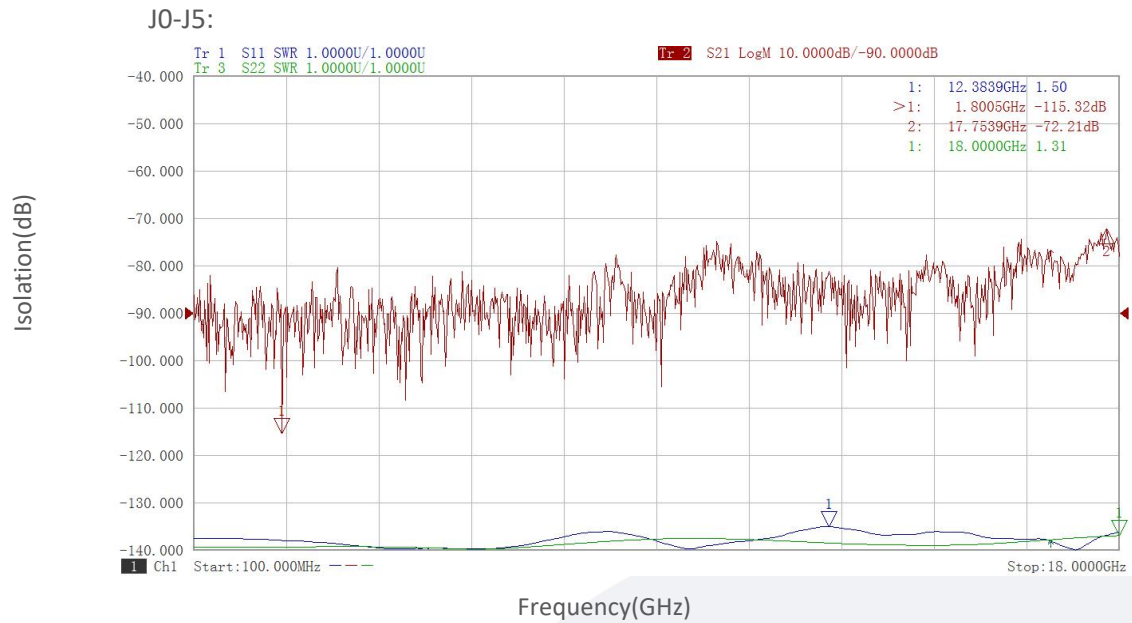
Insertion Loss&VSWR vs Frequency



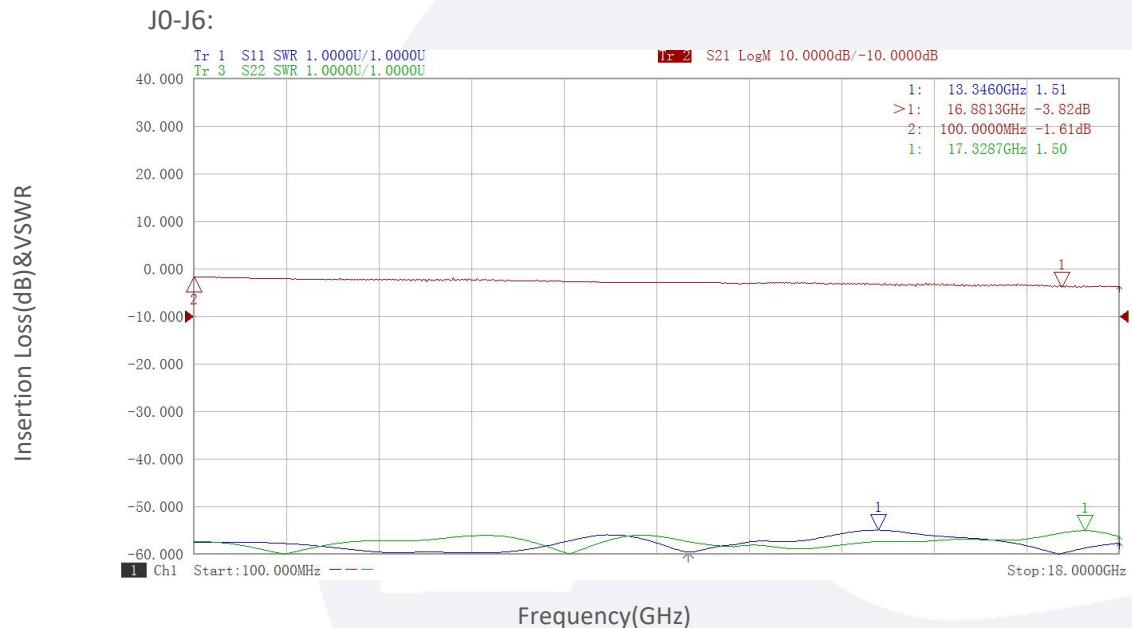
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Isolation vs Frequency



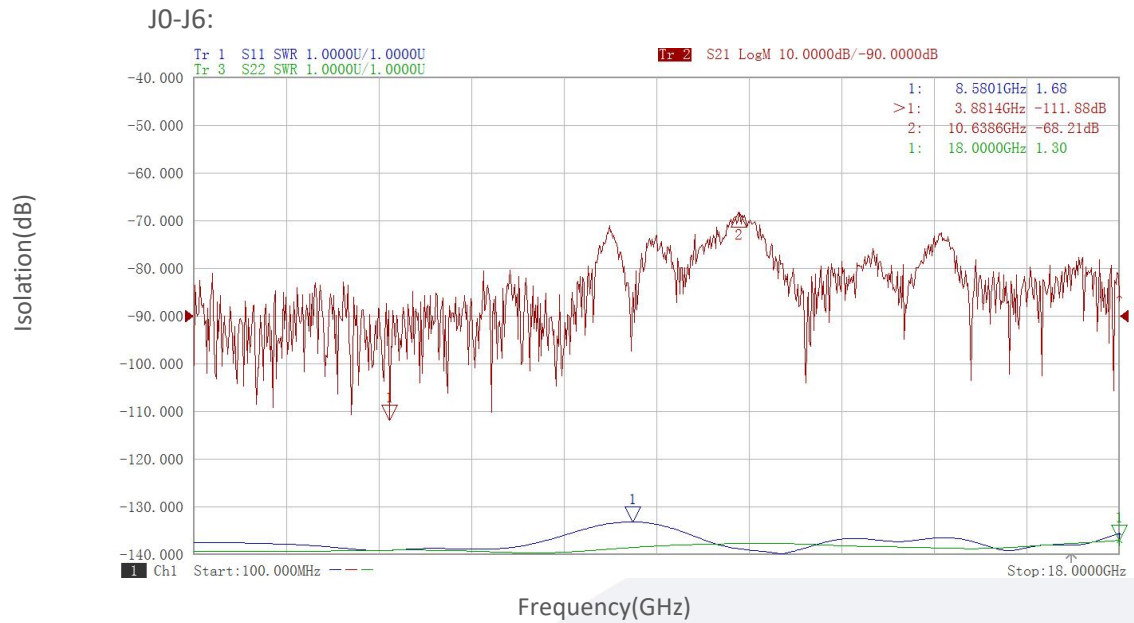
Insertion Loss&VSWR vs Frequency



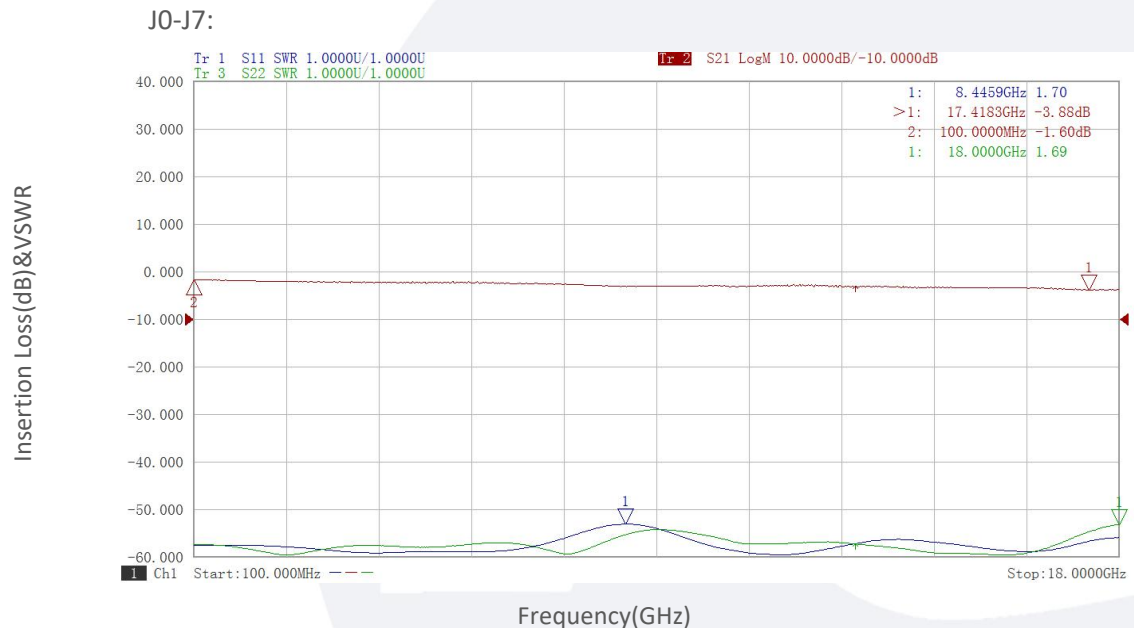
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Typical Performance Data:

Isolation vs Frequency



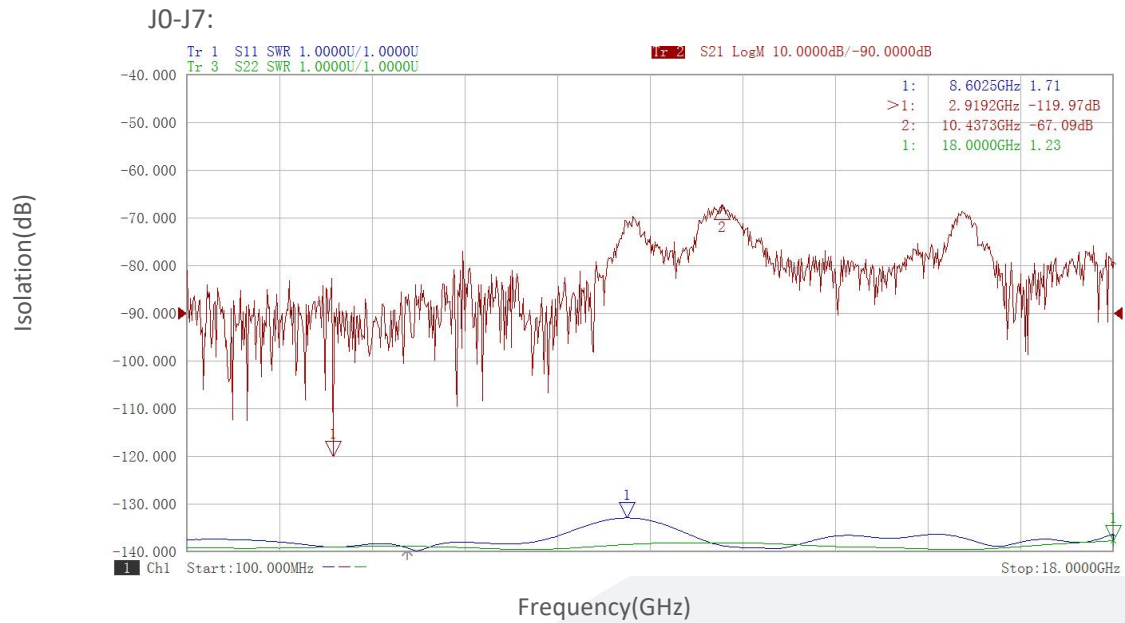
Insertion Loss&VSWR vs Frequency



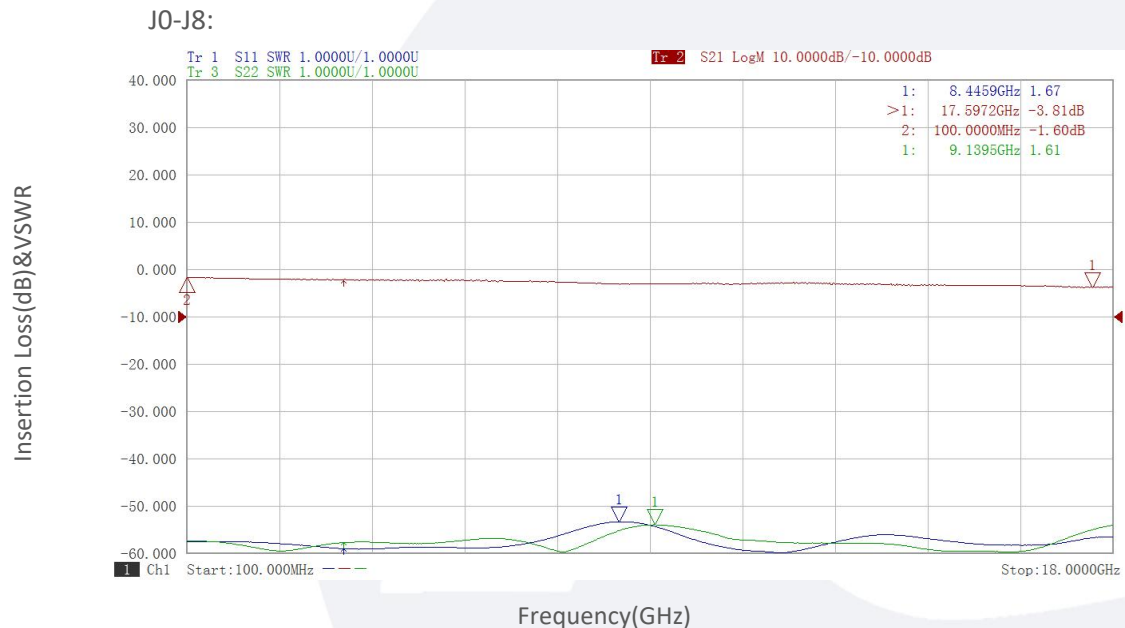
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Typical Performance Data:

Isolation vs Frequency



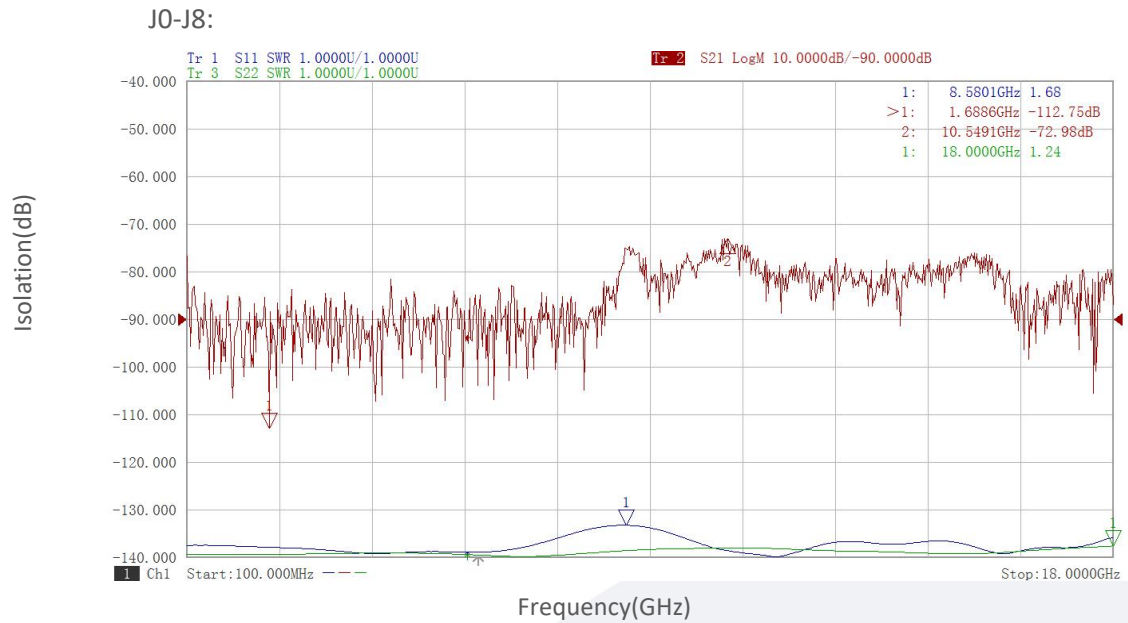
Insertion Loss & VSWR vs Frequency



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Isolation vs Frequency



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