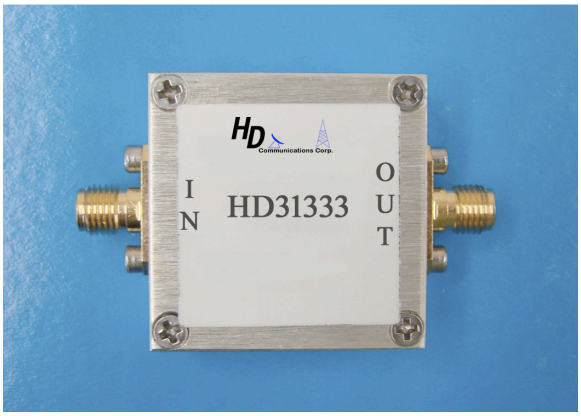
HD31333

902-928 Mhz Band Pass Filter

Features

- Center Frequency: 915MHz
- Bandwidth: 26MHz
- Insertion Loss: 1.8dB
- Input/Output Impedance: 50Ω
- Maximum Input Power: +15dBm
- SAW Technology
- SMA Connector



Description

HD31333 is a 902-928MHz SAW Band Pass Filter for 915MHz ISM Band application.

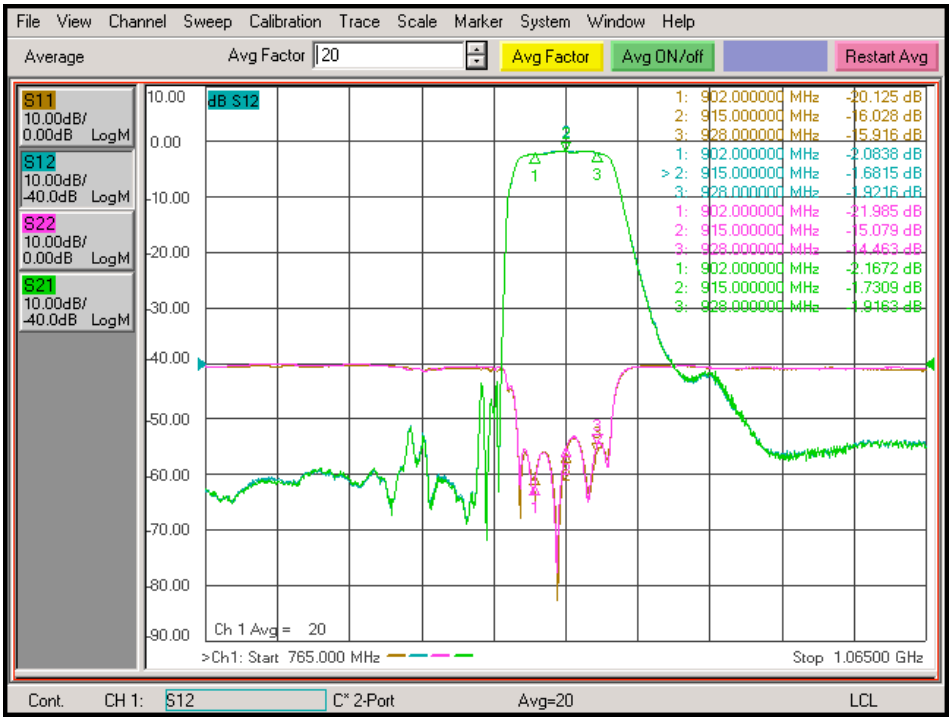
Electrical Specifications @ +25 °C, $Z_S = Z_L = 50\ \Omega$

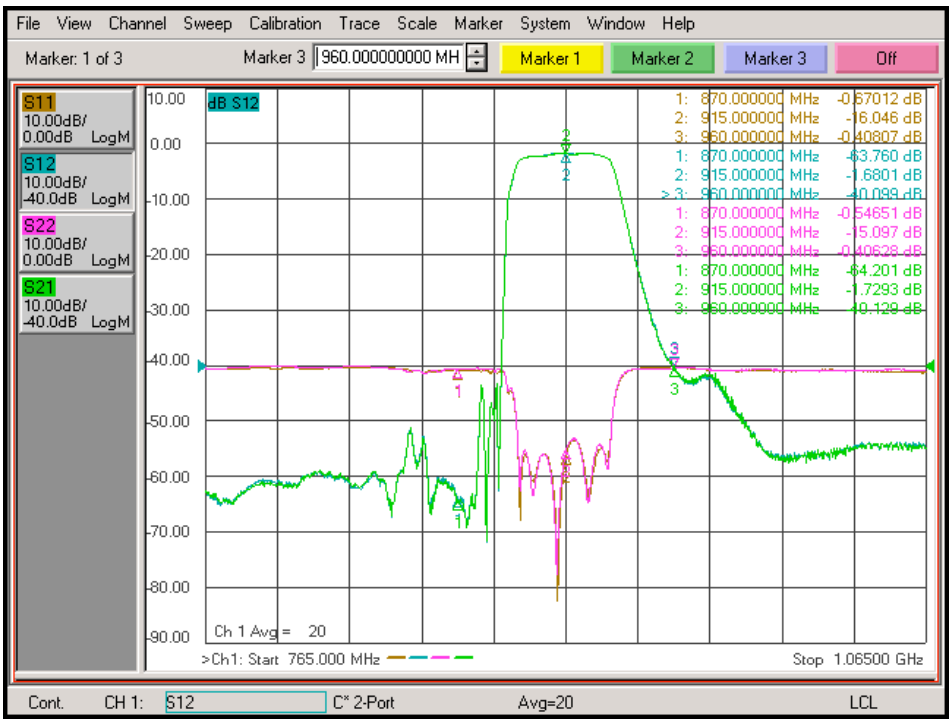
Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	902		928
Center Frequency	MHz		915	
Insertion Loss	dB		1.8	3.5
Rejection at 870MHz	dB		60	
Rejection at 960MHz	dB		38	
Maximum Input Power	dBm		+15	
Maximum Input DC Voltage	V		+5	
Input/output impedance	Ω		50	
Group Delay	ns		30	
Group Delay Ripple	ns		±7.5	
VSWR Input VSWR Output VSWR			1:1.4 1:1.4	
Size (excluding SMA connectors)	inch	1.25” x 1.25” x 0.56”		
Weight	oz	1.5		

Note: Input and output ports are interchangeable

HD Communications Corp. ● 332-C Dante Ct ● Holbrook, NY ● 11741 USA
PH # (631) 588-3877 ● Fax# (631) 648-0518 ● sales@rfcomp.com●www.rfcomp.com

Insertion Loss and Rejection:





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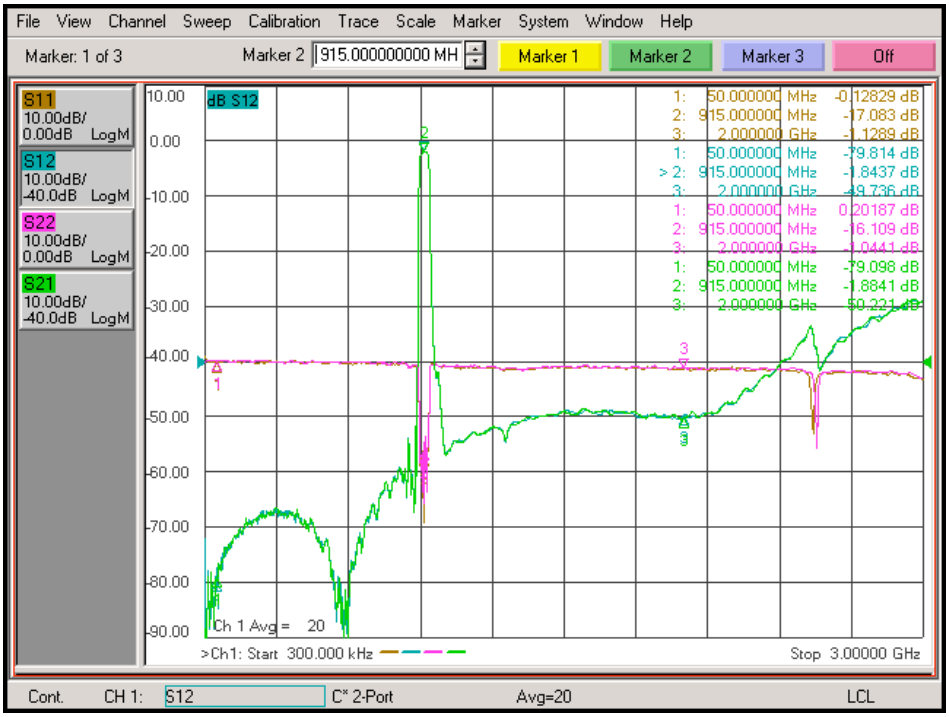
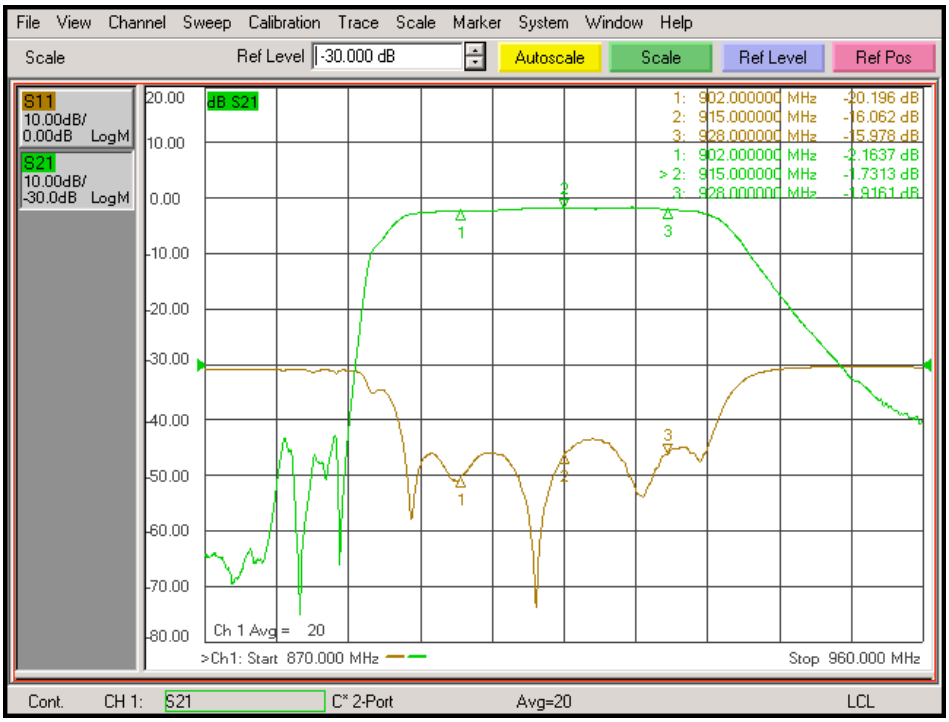
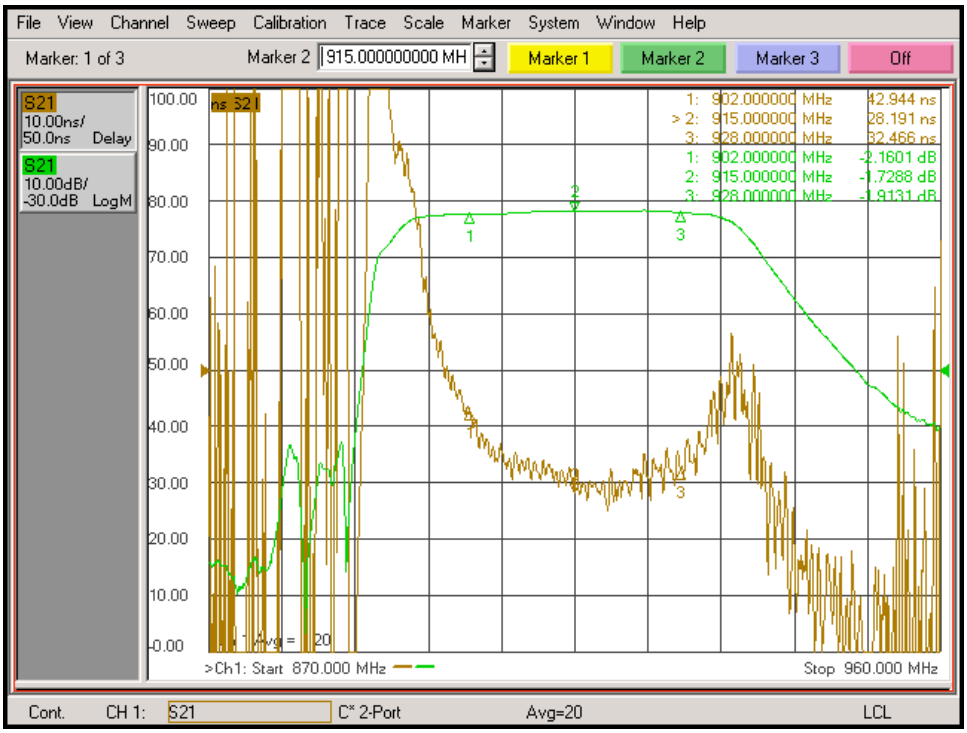
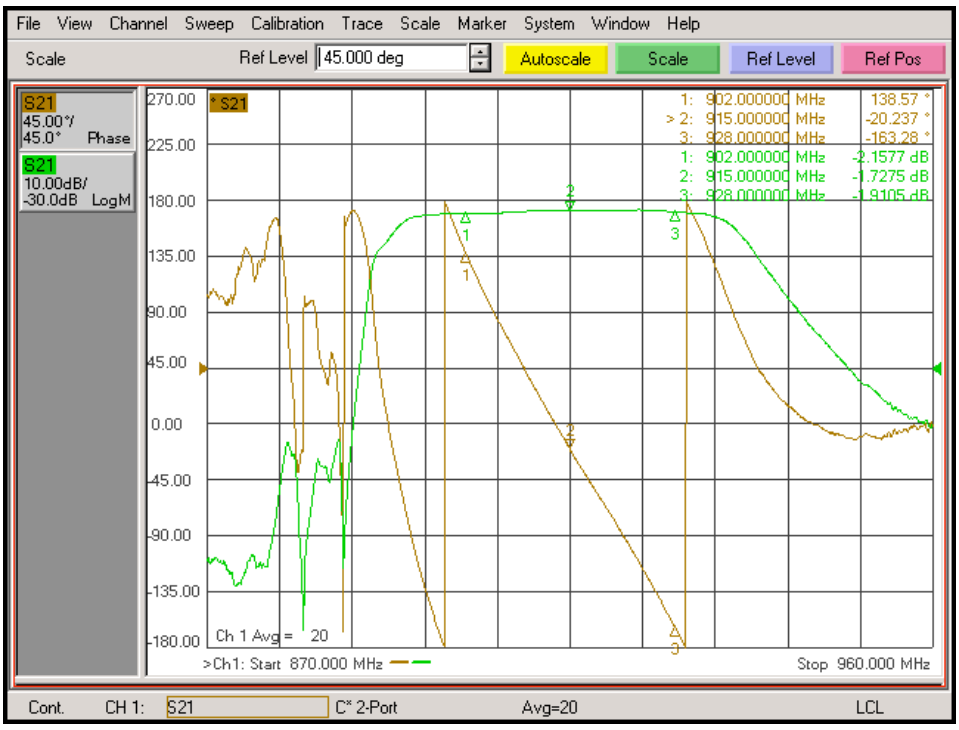


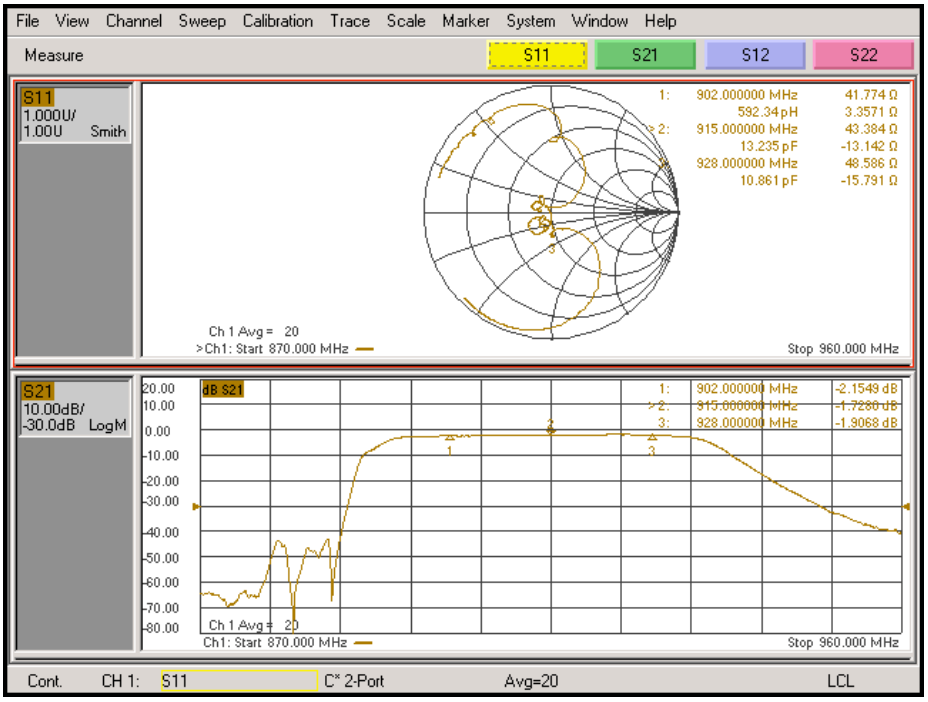


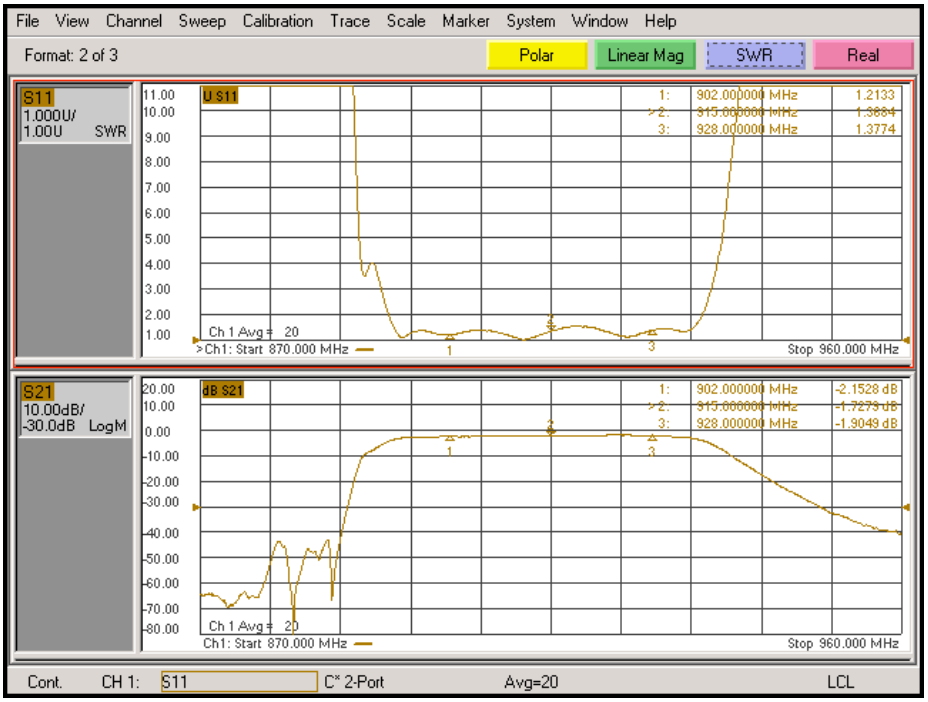
Delay and Phase:





Smith Chart and VSWR:

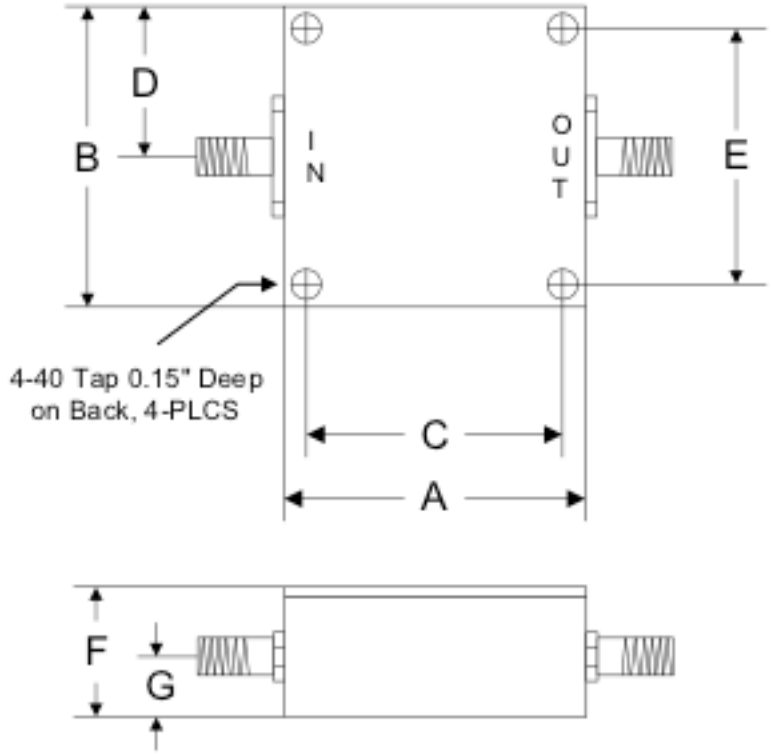

File View Channel Sweep Calibration Trace Scale Marker System Window Help
Measure
S11
S21
S12
S22
S11
1.000U/
1.00U Smith
1: 902.000000 MHz 41.774 Ω
592.34 pH 3.3571 Ω
2: 915.000000 MHz 43.384 Ω
13.235 pF -13.142 Ω
928.000000 MHz 48.586 Ω
10.861 pF -15.791 Ω
Ch 1 Avg = 20
>Ch1: Start 870.000 MHz
Stop 960.000 MHz
S21
10.00dB/
-30.0dB LogM
dB S21
1: 902.000000 MHz -2.1549 dB
2: 915.000000 MHz -1.7280 dB
3: 928.000000 MHz -1.9068 dB
20.00
10.00
0.00
-10.00
-20.00
-30.00
-40.00
-50.00
-60.00
-70.00
-80.00
Ch 1 Avg = 20
Ch1: Start 870.000 MHz
Stop 960.000 MHz
Cont.
CH 1:
S11
C* 2-Port
Avg=20
LCL


File View Channel Sweep Calibration Trace Scale Marker System Window Help
Format: 2 of 3
Polar
Linear Mag
SWR
Real
S11
1.000U/
1.00U SWR
U S11
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
1: 902.000000 MHz 1.2133
2: 915.000000 MHz 1.3684
3: 928.000000 MHz 1.3774
Ch 1 Avg = 20
>Ch1: Start 870.000 MHz
Stop 960.000 MHz
S21
10.00dB/
-30.0dB LogM
dB S21
1: 902.000000 MHz -2.1528 dB
2: 915.000000 MHz -1.7273 dB
3: 928.000000 MHz -1.9049 dB
20.00
10.00
0.00
-10.00
-20.00
-30.00
-40.00
-50.00
-60.00
-70.00
-80.00
Ch 1 Avg = 20
Ch1: Start 870.000 MHz
Stop 960.000 MHz
Cont.
CH 1:
S11
C* 2-Port
Avg=20
LCL

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+15dBm
DC Input Voltage	+5V
Operating Temperature	-30 °C to +85 °C
Storage Temperature	-40 °C to +100 °C

Outline



	A	B	C	D	E	F	G
Inch	1.250	1.250	1.000	0.625	1.000	0.563	0.250
mm	31.75	31.75	25.40	15.88	25.40	14.29	6.35