



SK3080D

Band 8, SAW Duplexer(Rx Unbalanced Port)
Revision: Jan 2021

MSL 3 Device



- Electrical Characteristics
 - Package Dimensions
 - Testing Environment
 - Frequency Characteristics
 - Packing material
-

□ Electrical Characteristics

Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-20	-	+85
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	0		
Input Power at Tx Port	dBm	29dBm, Ta=+50°C, 50000h, CW		
Antenna Impedance(unbalanced) ⁽¹⁾	Ω	50		
Tx Impedance(unbalanced) ⁽¹⁾	Ω	50		
Rx Impedance(unbalanced) ⁽¹⁾	Ω	50		
Package type		C63		
Length x Width	mm ²	1.8 x 1.4		
Height	mm	0.65		

Electrical Specification

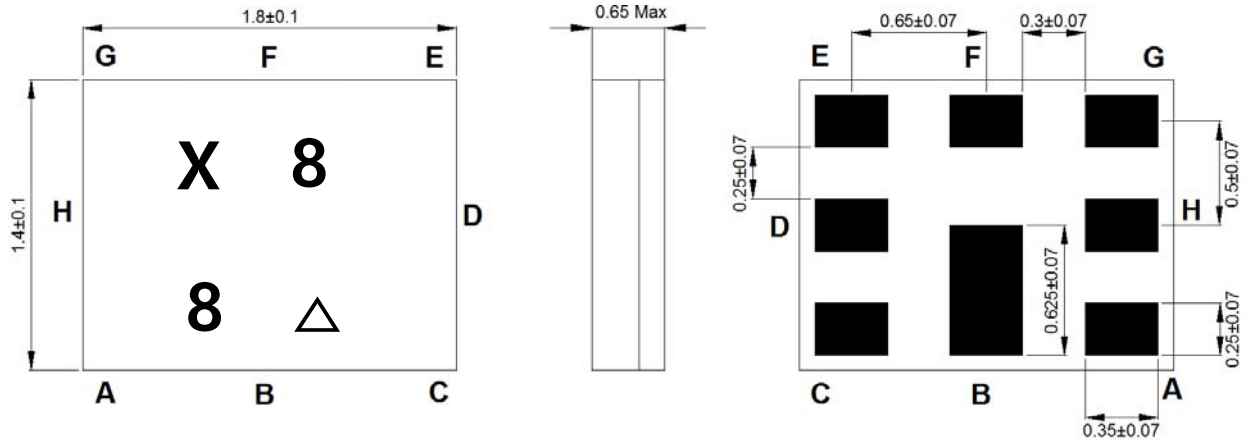
Tx to Ant		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	880.48 ~ 914.52	dB	-	2.7	3.6
	882.4 ~ 912.6	dB	-	2.0	2.7
Ripple	880.0 ~ 915.0	dB _{p-p}	-	2.0	2.9
VSWR of Ant Port	880.0 ~ 915.0	-	-	1.5	2.0
VSWR of Tx Port	880.0 ~ 915.0	-	-	1.5	2.0
Attenuation	10.0 ~ 716.0	dB	30	37	-
	716.0 ~ 728.0	dB	33	38	-
	728.0 ~ 793.0	dB	33	38	-
	832.0 ~ 862.0	dB	28	33	-
	927.4 ~ 957.6	dB	40	44	-
	1559.0 ~ 1563.0	dB	35	45	-
	1565.42 ~ 1573.37	dB	35	45	-
	1573.37 ~ 1577.47	dB	35	45	-
	1577.47 ~ 1585.42	dB	35	44	-
	1597.55 ~ 1605.89	dB	35	44	-
	1710.0 ~ 1785.0	dB	30	40	-
	1760.0 ~ 1840.0	dB	30	40	-
	1840.0 ~ 1880.0	dB	30	39	-
	1920.0 ~ 1980.0	dB	30	38	-
	2110.0 ~ 2170.0	dB	28	36	-
	2400.0 ~ 2500.0	dB	25	34	-
	2434.0 ~ 2494.0	dB	25	34	-
	2620.0 ~ 2745.0	dB	25	33	-
	3520.0 ~ 3660.0	dB	15	29	-
	4400.0 ~ 4575.0	dB	10	23	-
4900.0 ~ 5950.0	dB	10	21	-	
6160.0 ~ 6405.0	dB	15	38	-	
7040.0 ~ 7320.0	dB	15	29	-	

Ant to Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	925.48 ~ 959.52	dB	-	2.6	3.6
	927.4 ~ 957.6	dB		2.0	2.7
Ripple	925.0 ~ 960.0	dB _{p-p}	-	1.8	2.9
VSWR of Ant Port	925.0 ~ 960.0	-	-	1.5	2.3
VSWR of Rx Port	925.0 ~ 960.0	-	-	1.5	2.3
Attenuation	0.3 ~ 880.0	dB	32	36	-
	45.0	dB	50	84	-
	835.0 ~ 870.0	dB	31	37	-
	882.4 ~ 912.6	dB	45	52	-
	902.5 ~ 910.0	dB	45	67	-
	980.0 ~ 1045.0	dB	32	38	-
	1045.0 ~ 6000.0	dB	17	29	-
	1427.0 ~ 1448.0	dB	30	37	-
	1710.0 ~ 1785.0	dB	30	38	-
	1805.0 ~ 1980.0	dB	30	39	-
	2400.0 ~ 2500.0	dB	30	41	-
	2500.0 ~ 2570.0	dB	30	41	-
	2685.0 ~ 2790.0	dB	30	41	-
	2775.0 ~ 2880.0	dB	30	41	-
	2880.0 ~ 3700.0	dB	30	39	-
	3700.0 ~ 3840.0	dB	30	39	-
	4625.0 ~ 4800.0	dB	15	30	-
	4900.0 ~ 5950.0	dB	15	29	-
6475.0 ~ 6720.0	dB	10	30	-	
7400.0 ~ 7680.0	dB	5	23	-	

Tx to Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation	882.4 ~ 912.6	dB	50	54	-
	927.4 ~ 957.6	dB	45	47	-

Notes : (1) With Matching Network

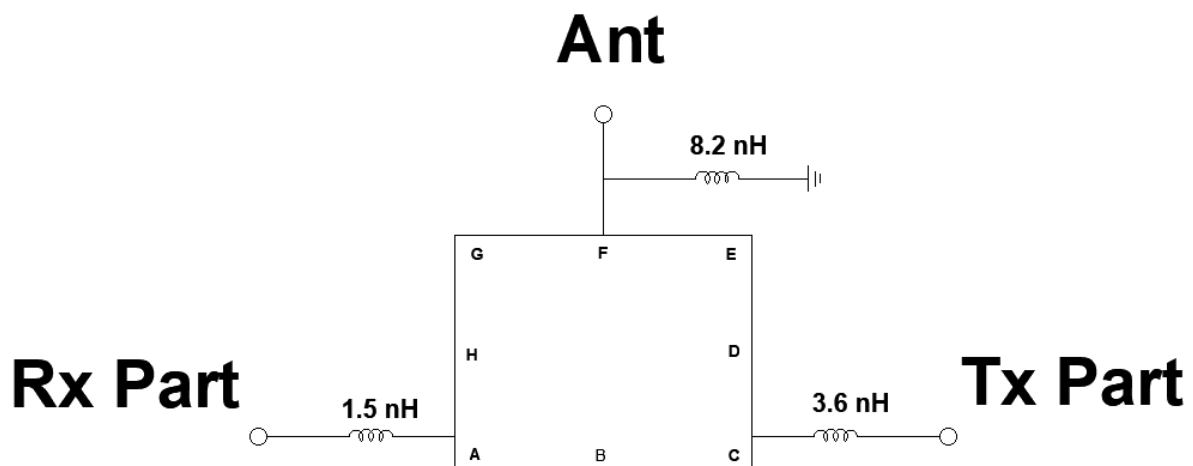
Package Dimensions



Marking Descriptions	
X	S or W
8	Band Class
8	Series Number
△	Date Code(Year+Month)

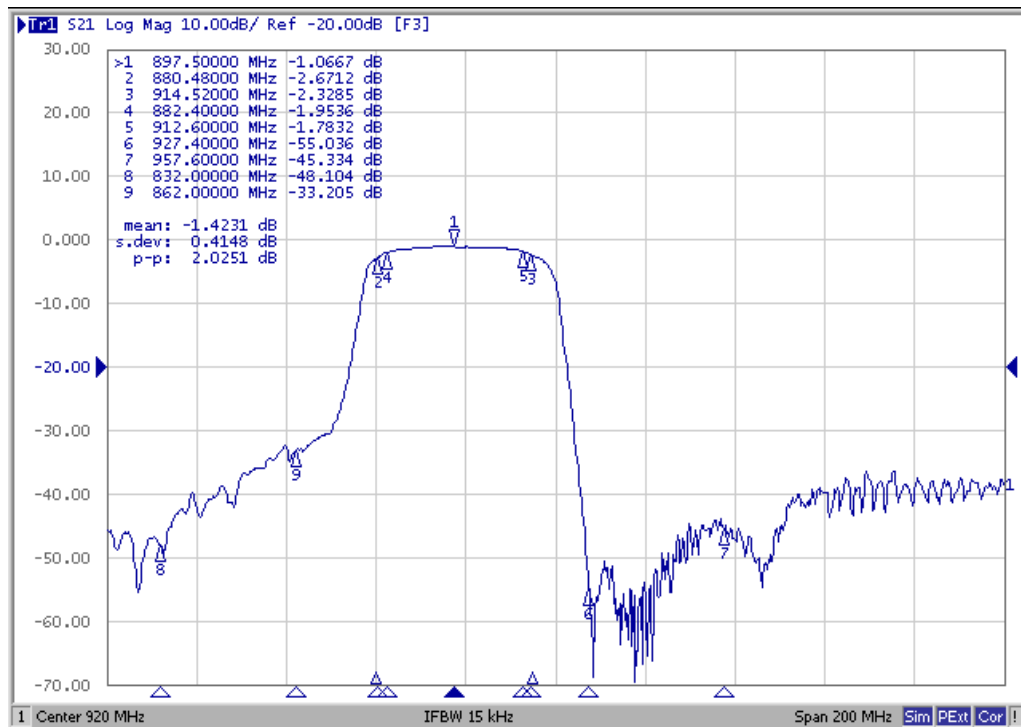
Pin Description	
B,D,E,G,H	Ground
F	Ant
C	Tx (897.5MHz)
A	Rx (942.5MHz)

Testing Environment

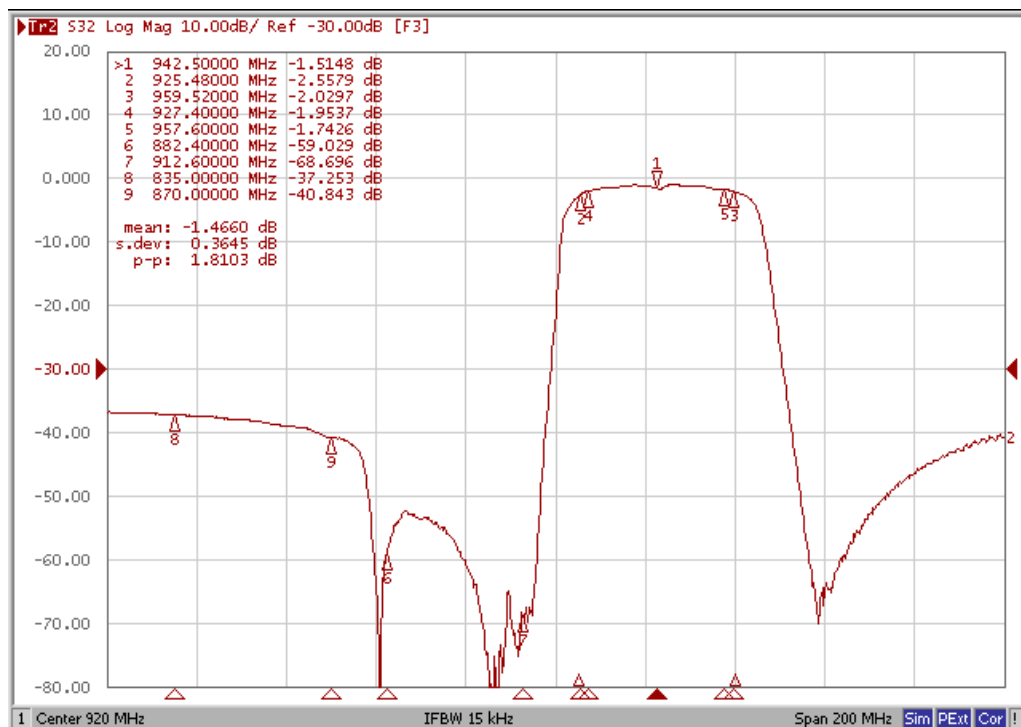


□ Frequency Characteristics

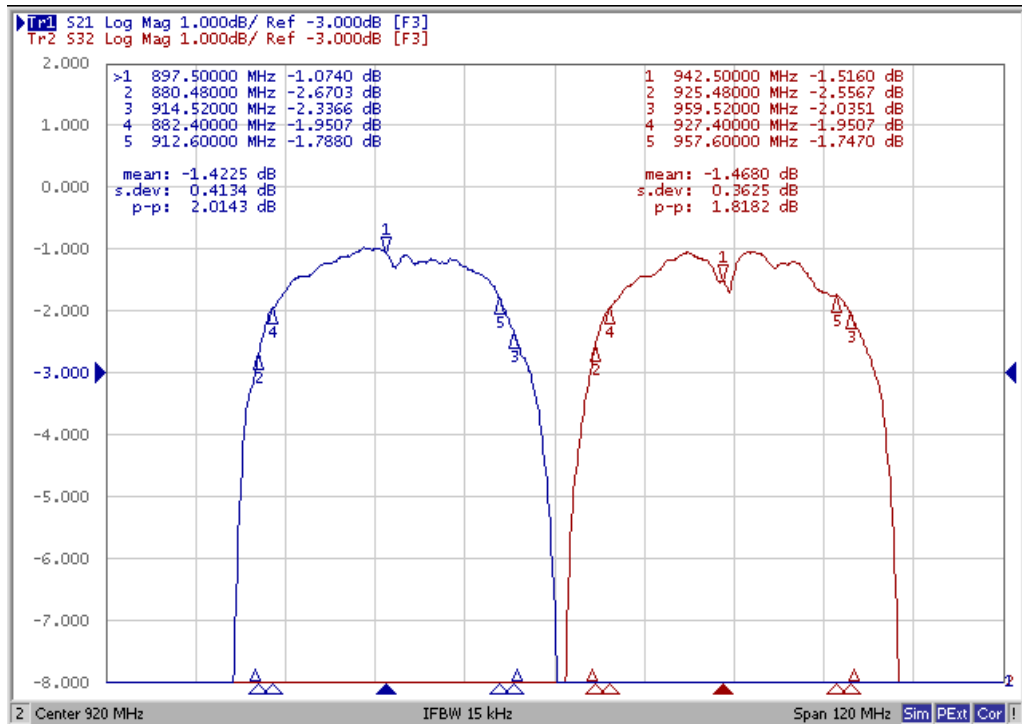
Tx to Ant



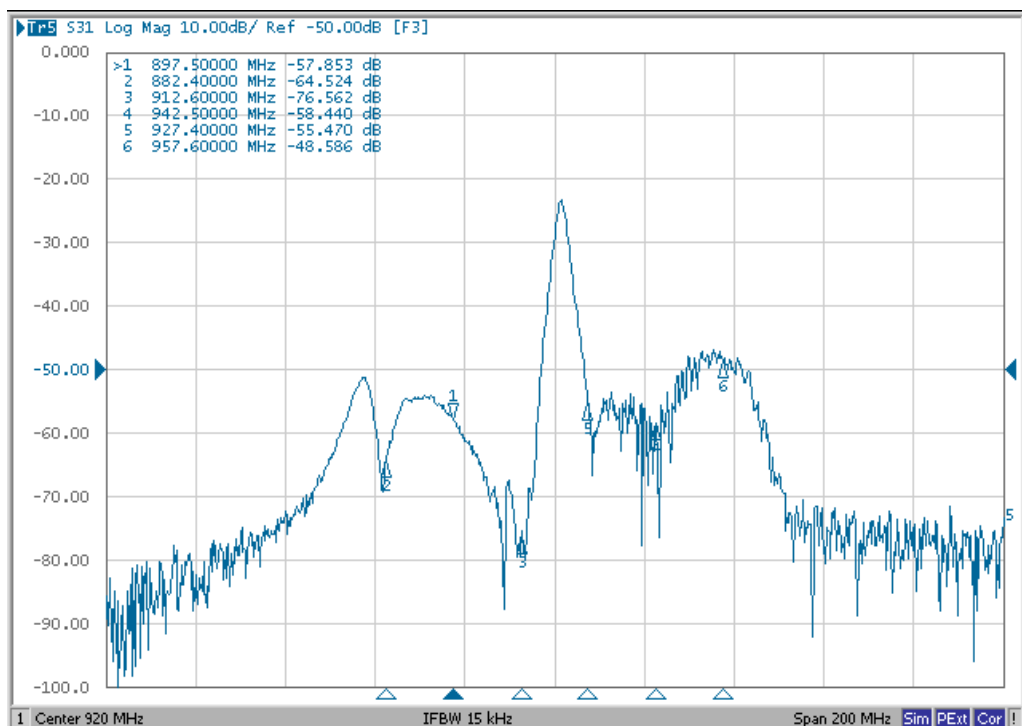
Ant to Rx



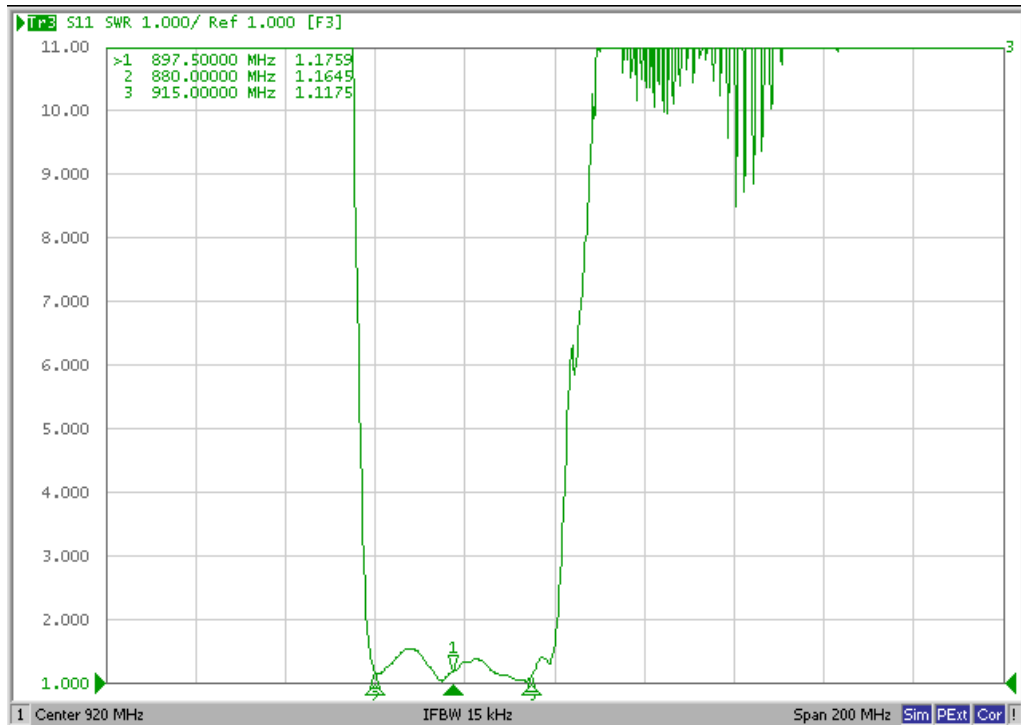
Ripple Deviation



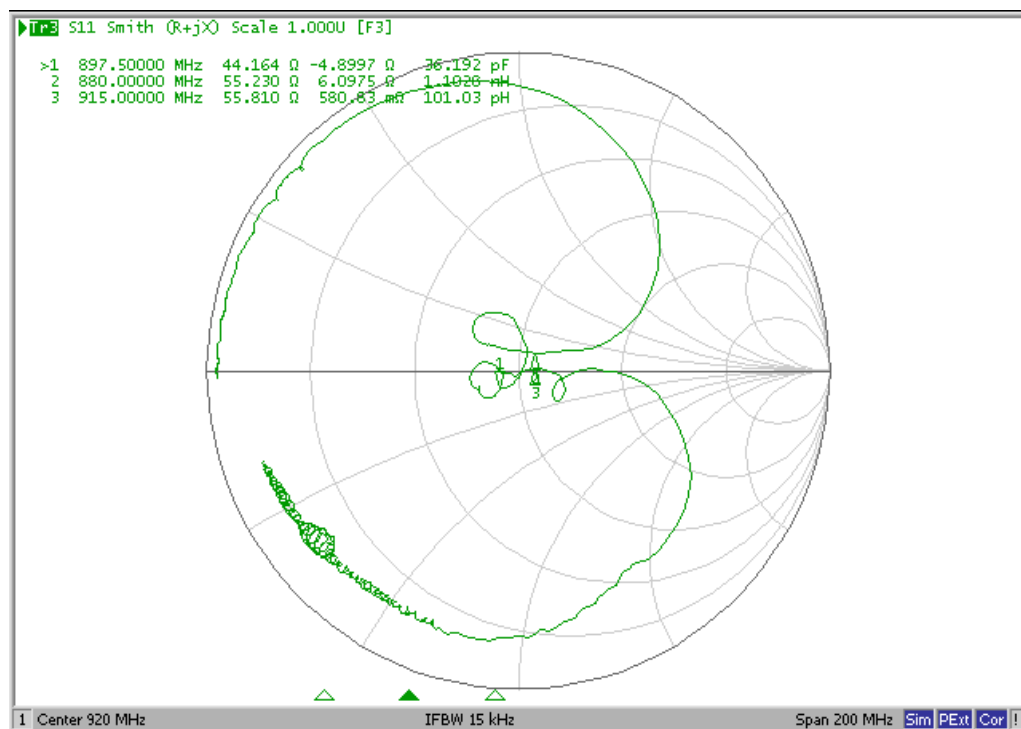
Isolation



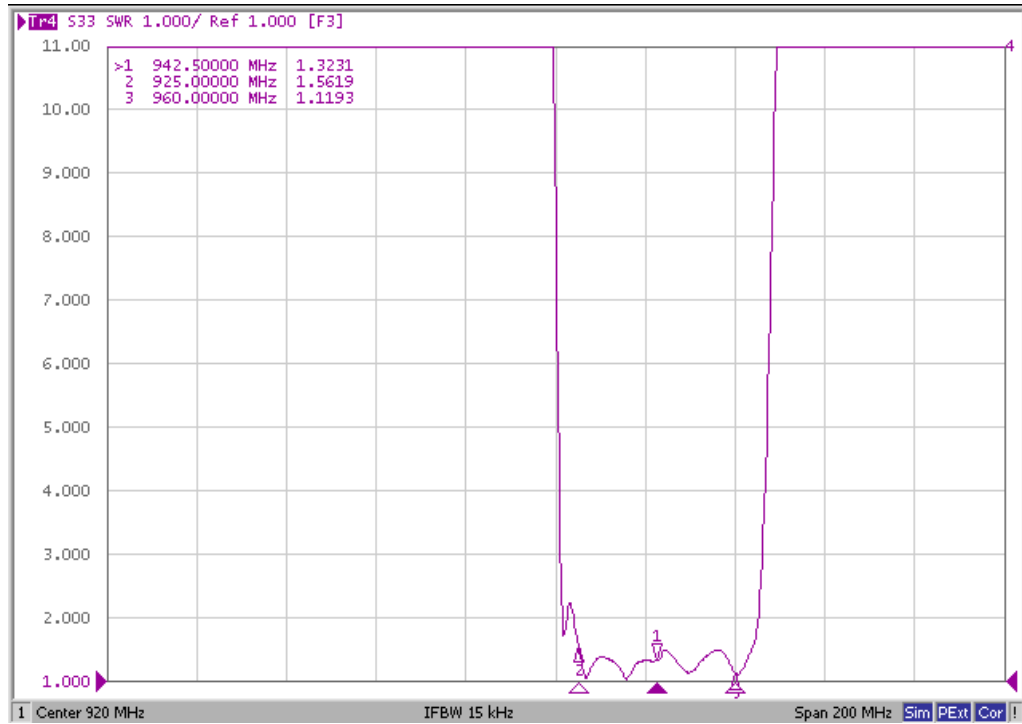
VSWR (Tx Port)



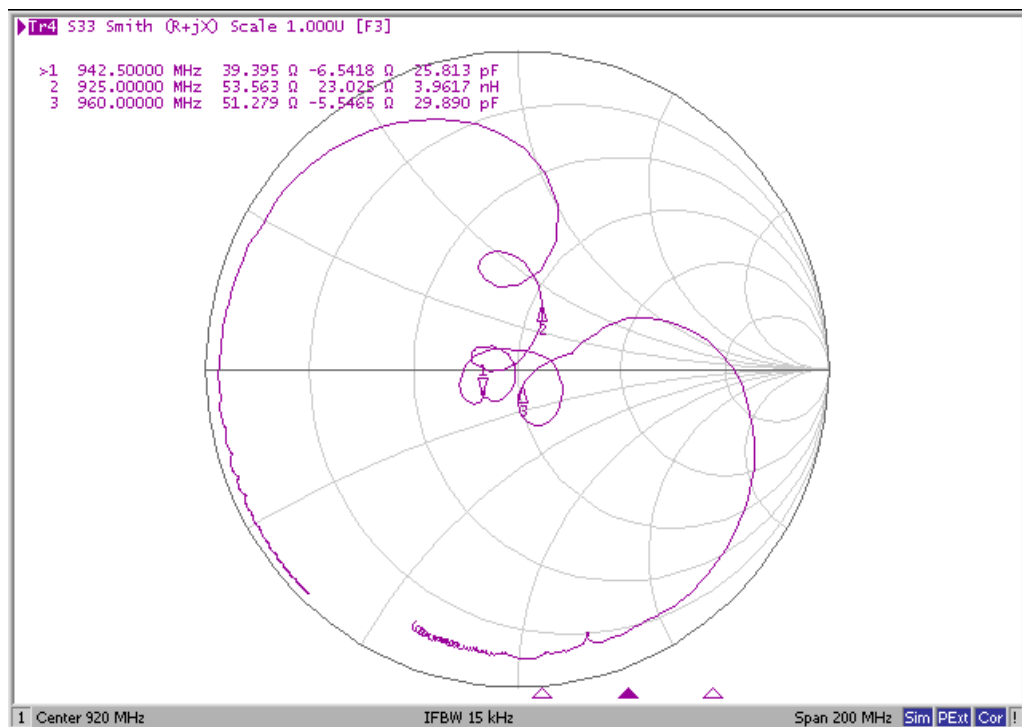
Smith Chart (Tx Port)



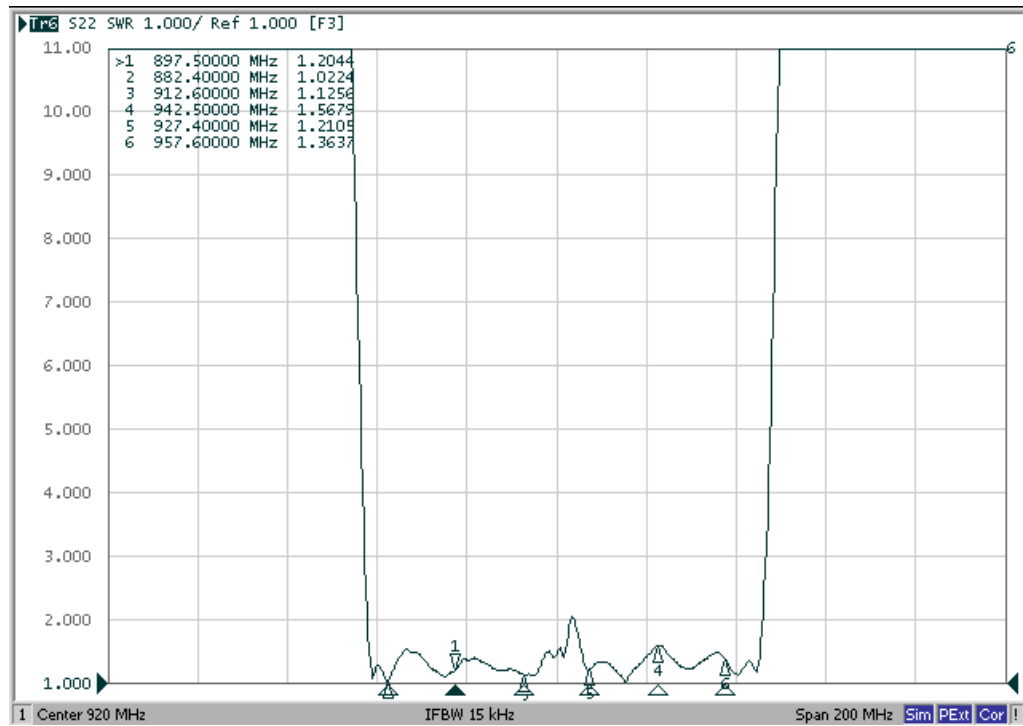
VSWR (Rx Port)



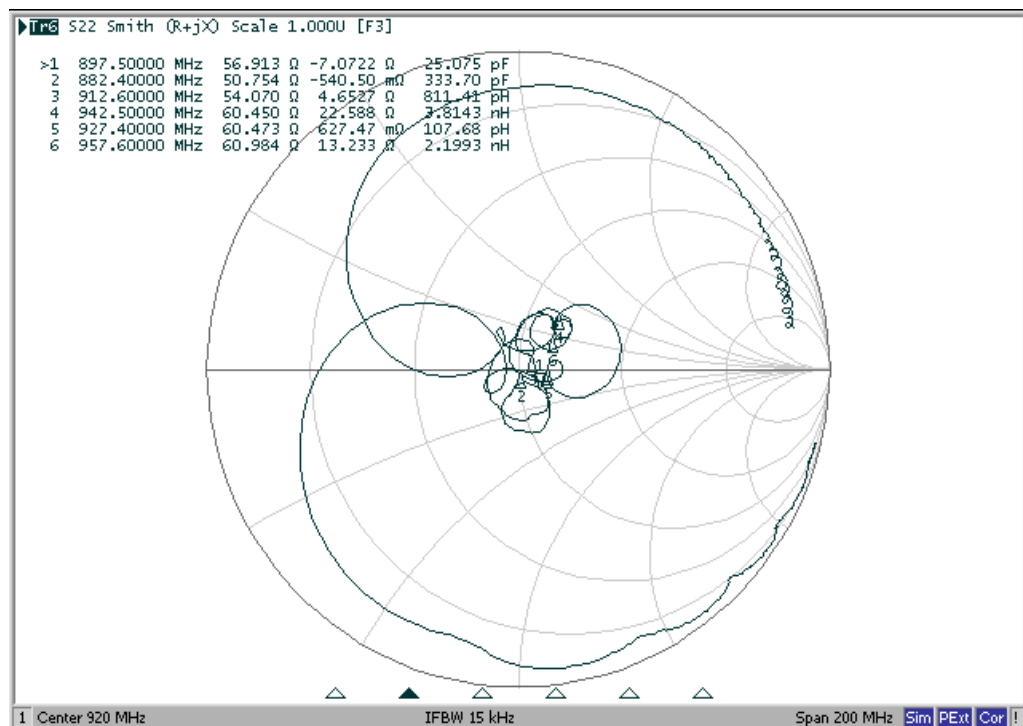
Smith Chart (Rx Port)



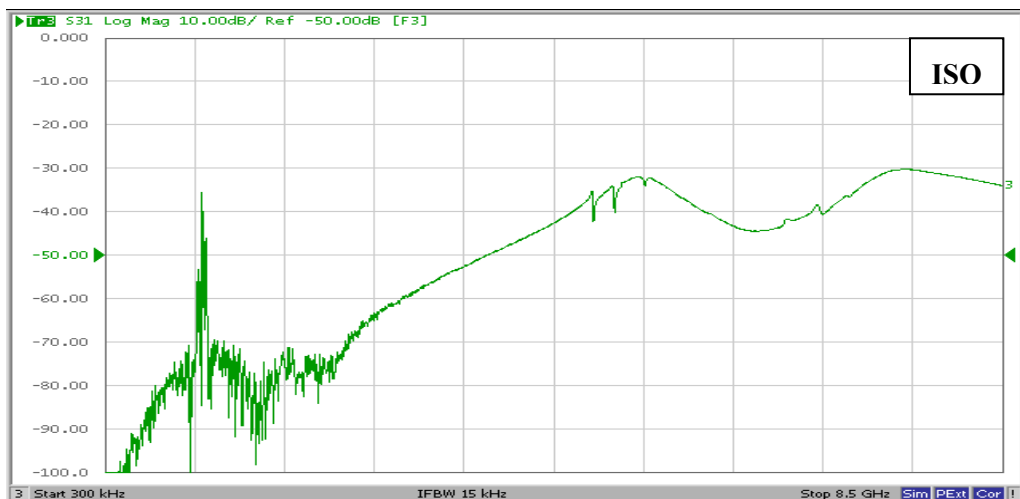
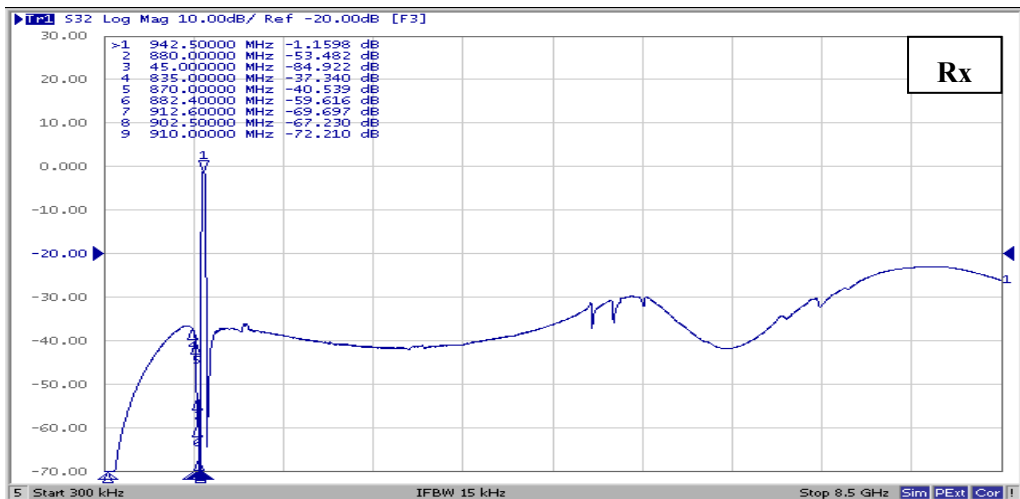
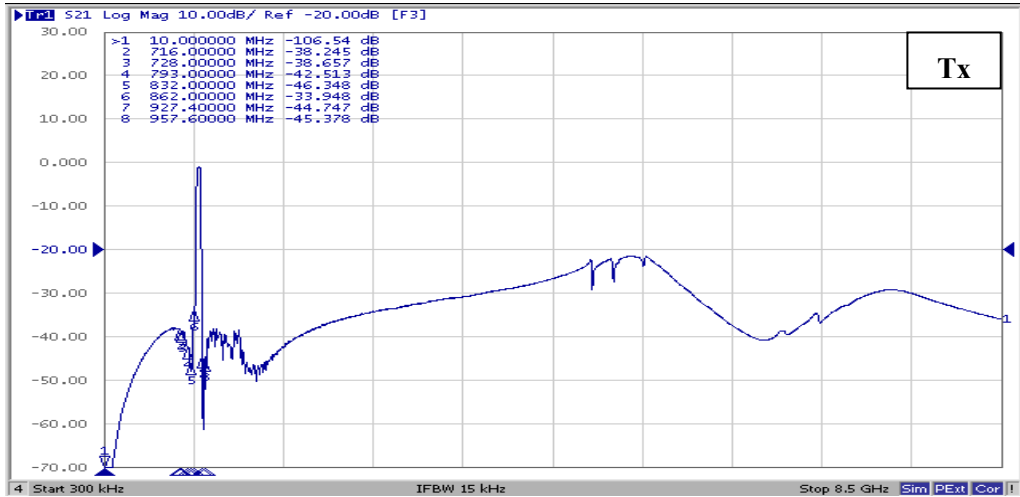
VSWR (ANT Port)



Smith Chart (ANT Port)

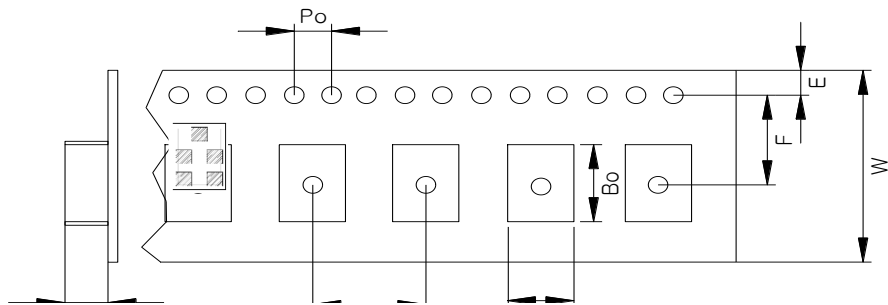


Wide Span



□ Packing material

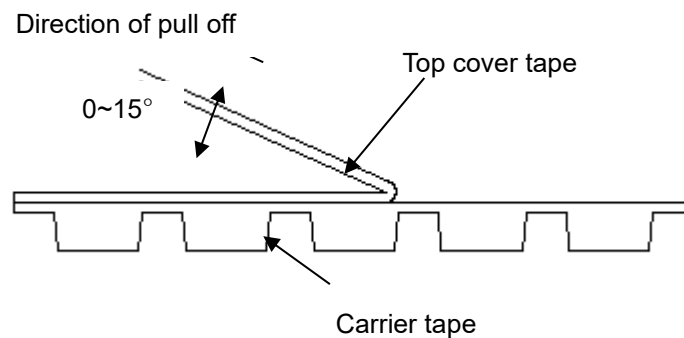
Carrier Tape Dimension



(U
nit : mm)

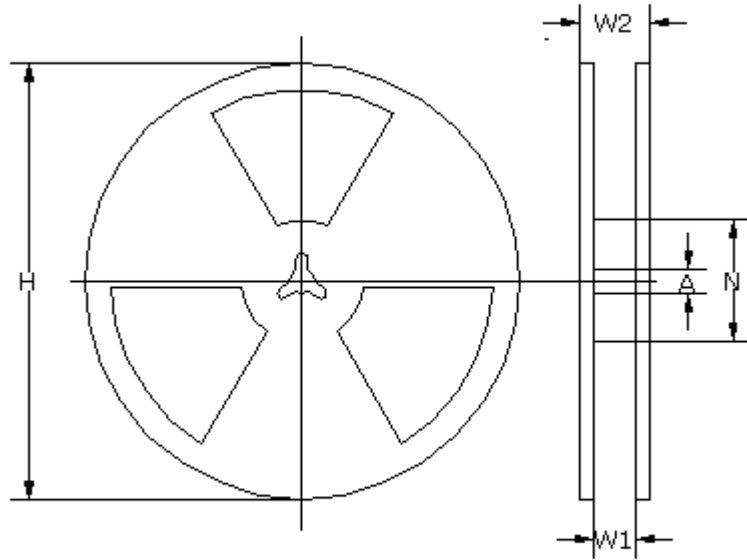
A	B	K0	W	E	F	P0	P1
1.3±0.05	1.65±0.05	0.75±0.05	8.0±0.3	1.75±0.1	3.5±0.1	4.0±0.1	4.0±0.1

Top Cover Tape Adhesion



Pull of angle : 0 ~ 15 degree
 Speed : 300 mm/min
 Force : 0.2 ~ 0.7N

Reel Dimension



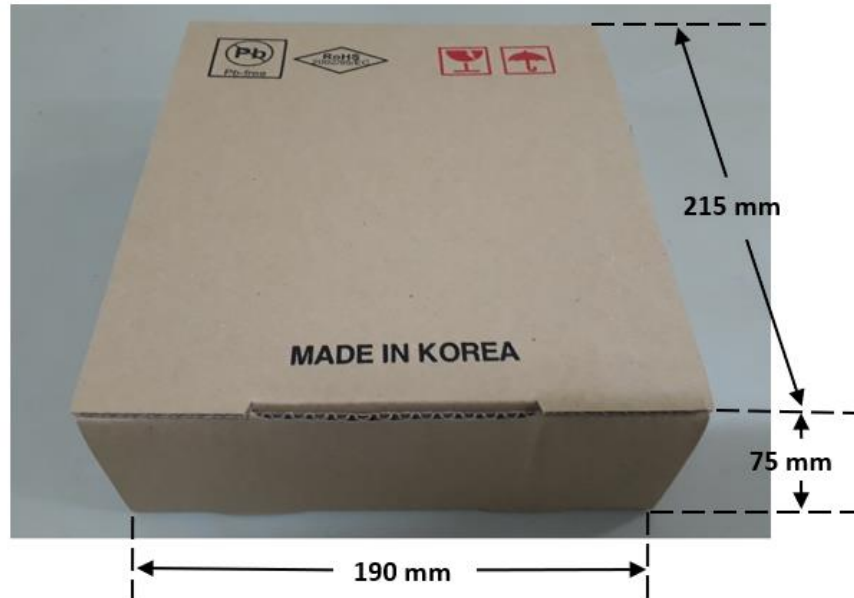
(Unit : mm)

A	N	H	W1	W2
$\Phi 13 \pm 0.2$	$\Phi 66 \pm 0.5$	$\Phi 180.0 +0/-1.5$	$9.0 +1.0/-0$	11.4 ± 1.0

Quantity per Reel : 3,000pcs
 Tray and Tape Type : **N.A**

4.4.2 Packaging Box

- 1) Inner Box ; in which **EECO** puts 5 reel which contains **15,000 filters.**



- 2) Outer Box ; in which **EECO** puts 16 inner boxers, that is 80 reel .
Total 240,000 filters/outer box

