Features

- For IF SAW filter
- Ceramic Surface Mount Package
- Small size
- RoHS compliant (2002/95/EC), Pb-free

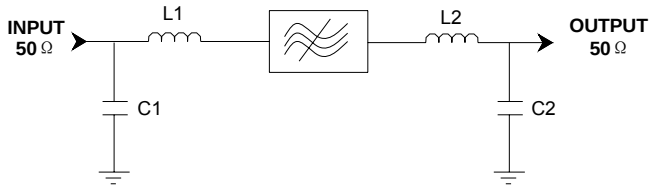
Specifications

Parameter		Unit	Minimum	Typical (single-ended)	Typical (balance)	Typical (single-balance)	Typical (balance-single)	Maximum
Center Frequency		MHz	-	140	140	140	140	-
Insertion Loss		dB	-	11.6	11.6	11.1	11.6	13.5
2 dB Bandwidth		MHz	40	44	44	44.1	44	-
Passband Variation(f0±20MHz)		dB	-	0.8	1.1	1	0.9	2
Group Delay Variation(f0±20MHz)		nsec	-	35	39	50	35	100
Absolute Delay		usec	-	0.27	0.27	0.27	0.27	0.5
Input/output return loss(f0±20MHz)		dB	-	4.7/5.4	6.7/6.4	3.8/5.8	4.6/6.8	-
Ultimate Rejection	10～70MHz	dB	-	48	70	68	60	-
	70～115MHz	dB	-	27	24	25	26	-
	165～200MHz	dB	-	9	8	8	9	-
	200～1000MHz	dB	-	53	43	55	50	-
Material Temperature coefficient		KHz/°C	-11.48					
Substrate Material		-	128LN					
Ambient Temperature		°C	25					
Operating Temperature Range		°C	-40		-		+85	
Storage Temperature Range		°C	-50		-		+125	
DC Voltage		V	0					
Input Power		dBm	-		-		25	
ESD Class		-	1A					
Package Size		SMD3.8*3.8						

Notes:

1. All specifications are based on the test circuit shown;
2. In production, all specifications are measured by Agilent Network analyzer and full 2 port calibration at room temperature;
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances;
4. This is the optimum impedance in order to achieve the performance show.

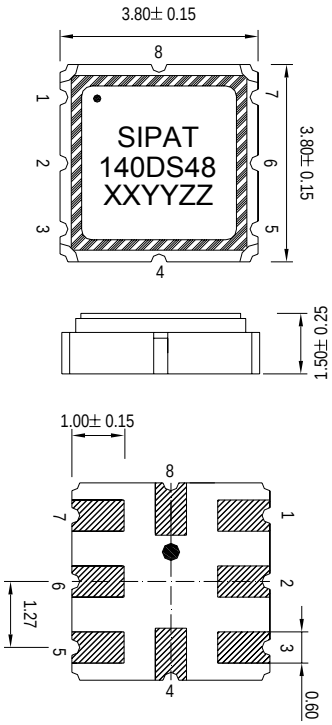
Matching Configuration(single-ended)



L1=82nH L2=100nH
C1=22pF C1=8.2pF
Source/Load Impedance=50 ohm

Notes - Component values may change depending on board layout.

Package Dimension(single-ended)

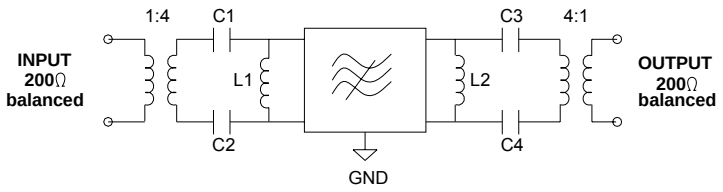


Pad Configuration:
Input: 1
Output: 5
Ground: 2,3,4,6,7,8

Marking Configuration:
1) •: Pad Number 1 Index
2) SIPAT: Manufacturer Name
3) 140DS48: Part Number
4) XXYY: Date(Year/month)
5) ZZ: Identified Code

Package: SMD3.8*3.8 **Unit: mm**

Matching Configuration(balance)



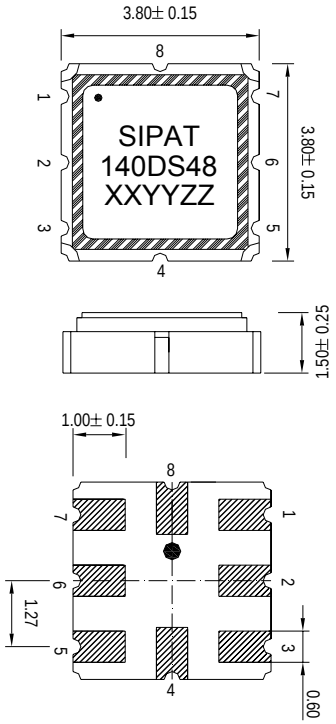
L1=82nH L2=56nH

C1=C2=C3=C4=33pF

Source/Load Impedance=200 ohm

Notes - Component values may change depending on board layout.

Package Dimension(balance)



Pad Configuration:

Input: 1,2

Output: 5,6

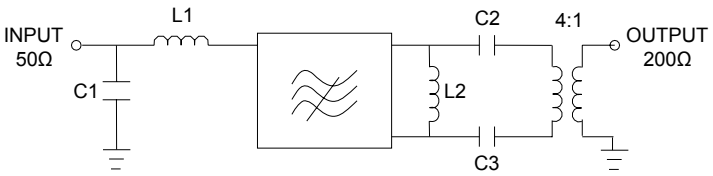
Ground: 3,4,7,8

Marking Configuration:

1) •: Pad Number 1 Index
2) SIPAT: Manufacturer Name
3) 140DS48: Part Number
4) XXYY: Date(Year/month)
5) ZZ: Identified Code

Package: SMD3.8*3.8 **Unit: mm**

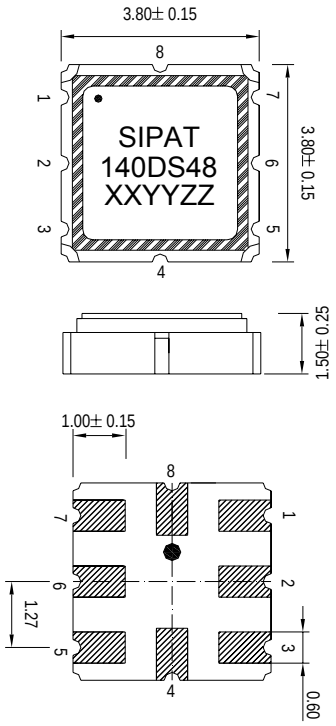
Matching Configuration(single-balance)



L1=100nH L2=68nH
C1=22pF C2=C3=36pF
Source Impedance=50 ohm
Load Impedance=200 ohm

Notes - Component values may change depending on board layout.

Package Dimension(single-balance)

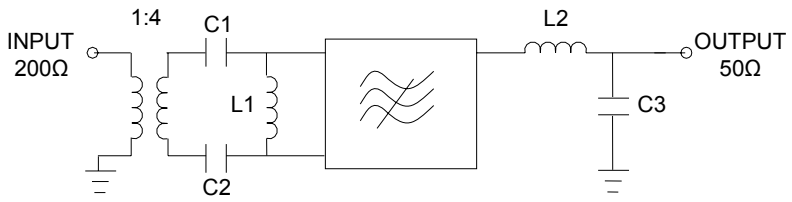


Pad Configuration:
Input: 1
Output: 5,6
Ground: 2,3,4,7,8

Marking Configuration:
1) •: Pad Number 1 Index
2) SIPAT: Manufacturer Name
3) 140DS48: Part Number
4) XXYY: Date(Year/month)
5) ZZ: Identified Code

Package: SMD3.8*3.8 **Unit: mm**

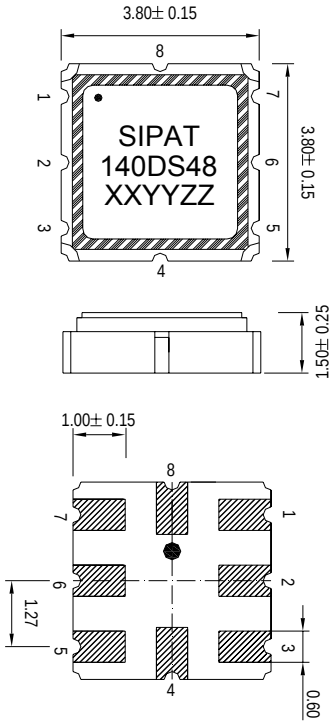
Matching Configuration(balance-single)



L1=100nH L2=(68+10)nH
C1=C2=36pF C3=27pF
Source Impedance=200 ohm
Load Impedance=50 ohm

Notes - Component values may change depending on board layout.

Package Dimension(balance-single)



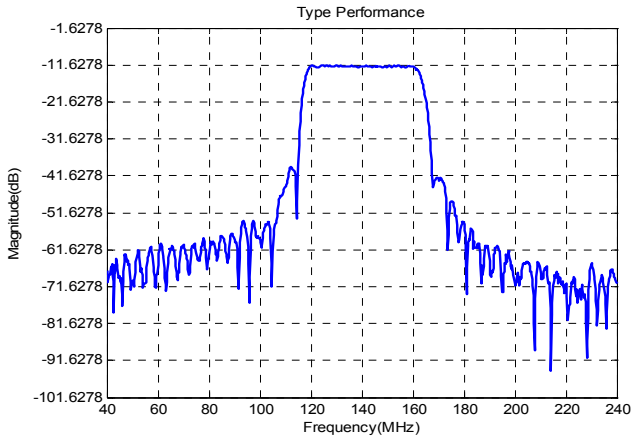
Pad Configuration:
Input: 1,2
Output: 5
Ground: 3,4,6,7,8

Marking Configuration:
1) •: Pad Number 1 Index
2) SIPAT: Manufacturer Name
3) 140DS48: Part Number
4) XXYY: Date(Year/month)
5) ZZ: Identified Code

Package: SMD3.8*3.8 **Unit: mm**

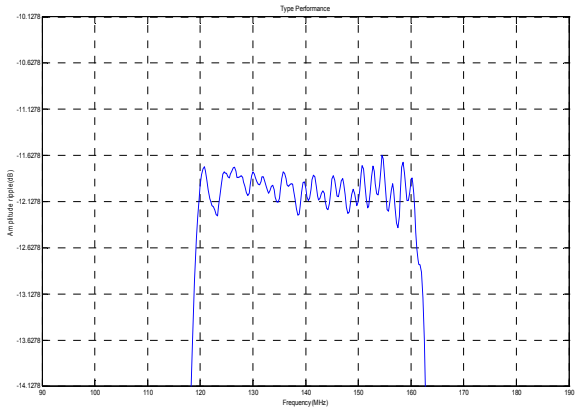
Typical Performance(single-ended)

Frequency Respond



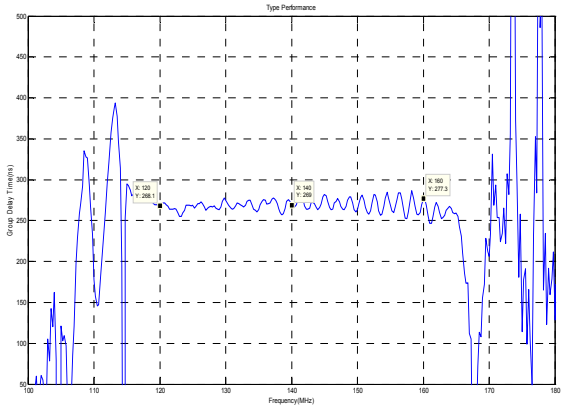
Horizontal: 20MHz/Div Vertical: 10dB/Div

Passband Respond



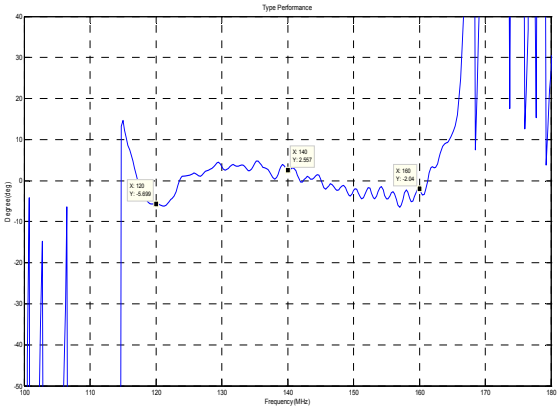
Horizontal: 10MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±20MHz)



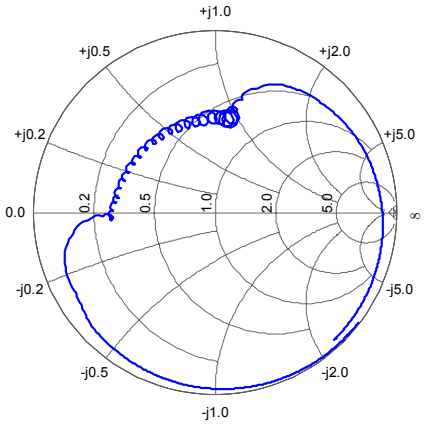
Horizontal: 10MHz/Div Vertical: 50ns/Div

Phase Linearity(f0±20MHz)

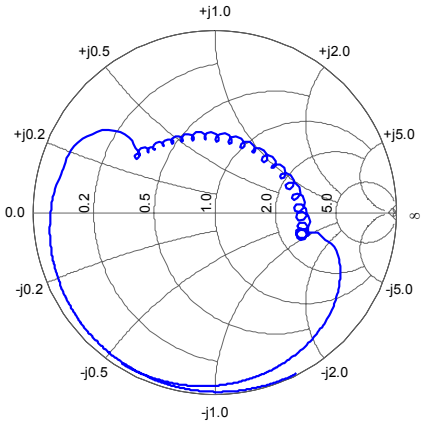


Horizontal: 10MHz/Div Vertical: 10deg/Div

Smith Chart S11

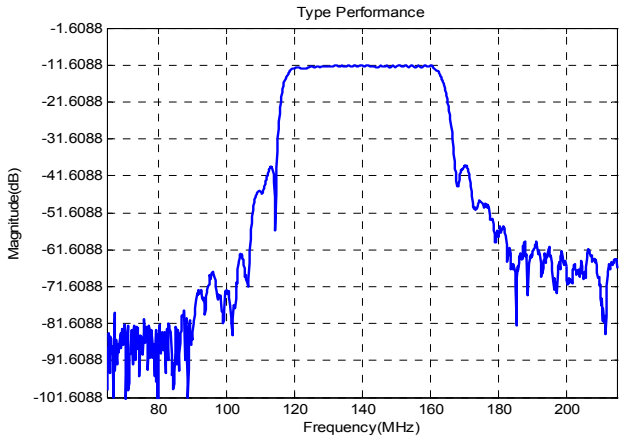


Smith Chart S22



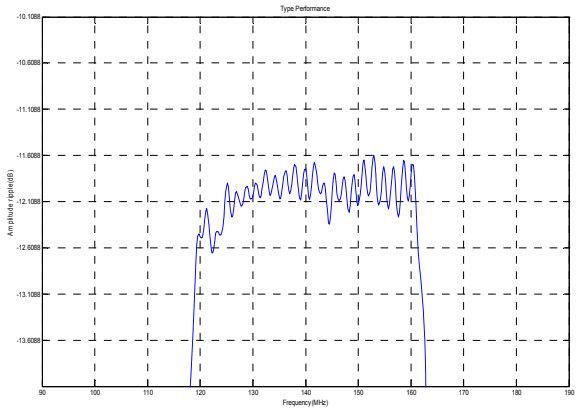
Typical Performance(balance)

Frequency Respond



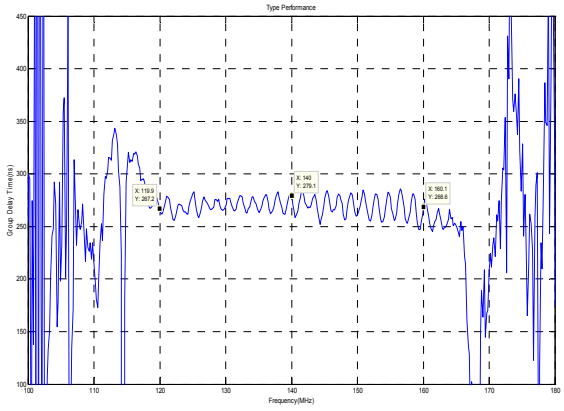
Horizontal: 20MHz/Div Vertical: 10dB/Div

Passband Respond



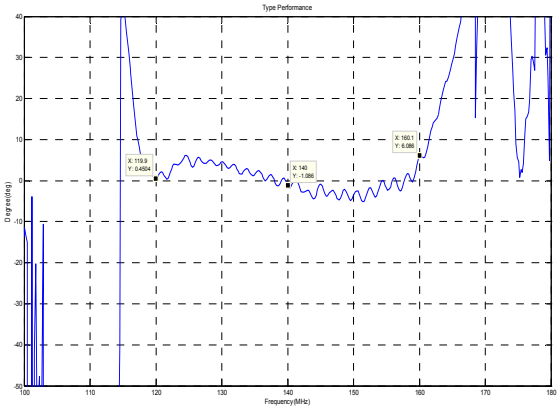
Horizontal: 10MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±20MHz)



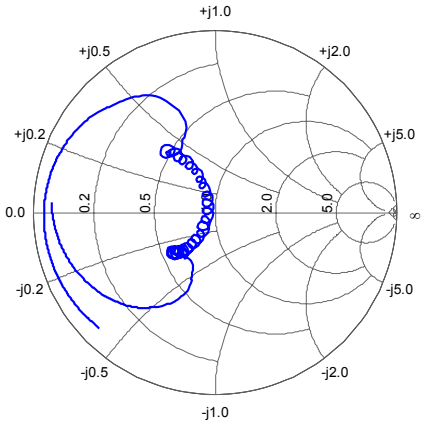
Horizontal: 10MHz/Div Vertical: 50ns/Div

Phase Linearity(f0±20MHz)

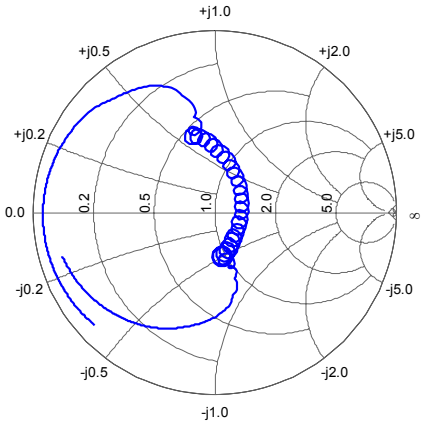


Horizontal: 10MHz/Div Vertical: 10deg/Div

Smith Chart S11

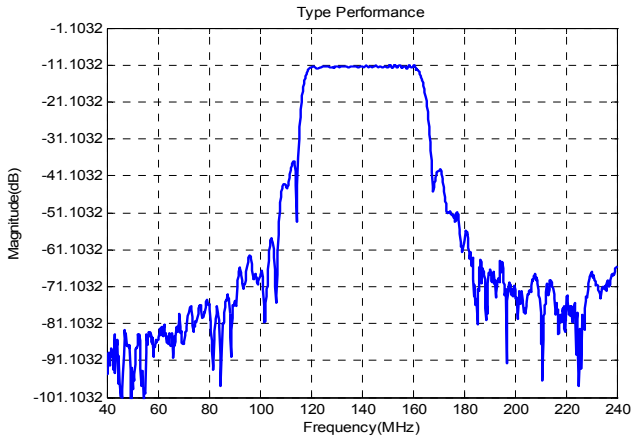


Smith Chart S22



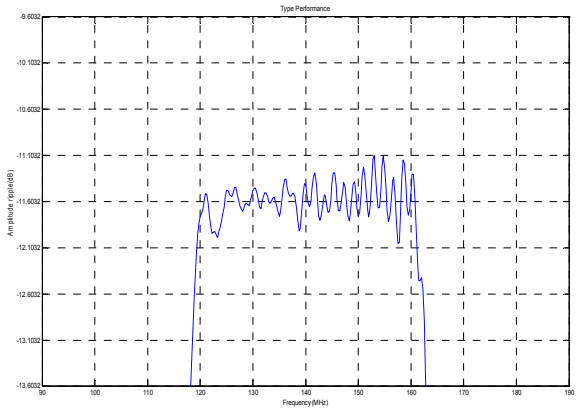
Typical Performance(single-balance)

Frequency Respond



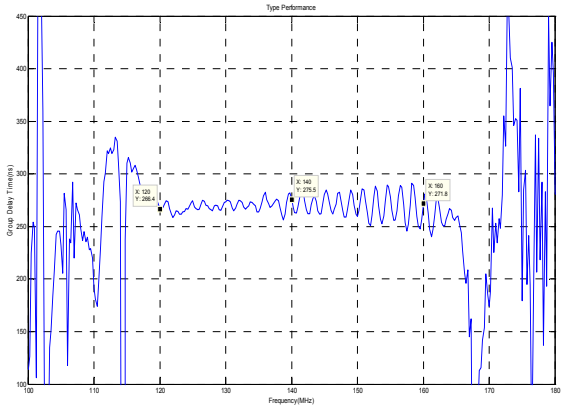
Horizontal: 20MHz/Div Vertical: 10dB/Div

Passband Respond



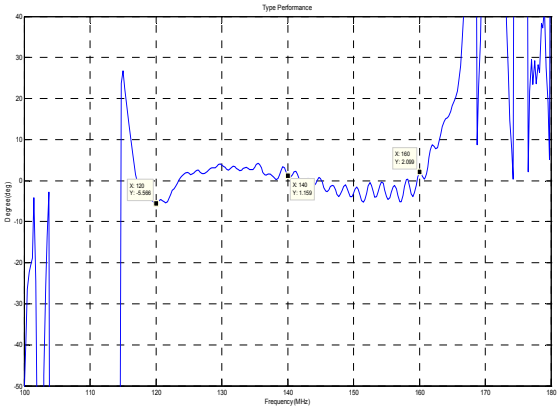
Horizontal: 10MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±20MHz)



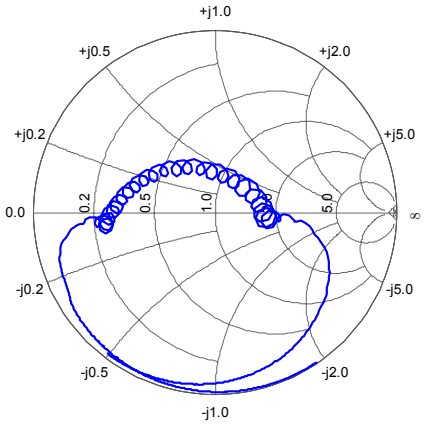
Horizontal: 10MHz/Div Vertical: 50ns/Div

Phase Linearity(f0±20MHz)

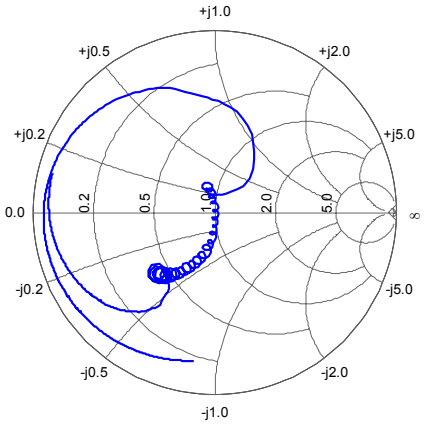


Horizontal: 10MHz/Div Vertical: 10deg/Div

Smith Chart S11

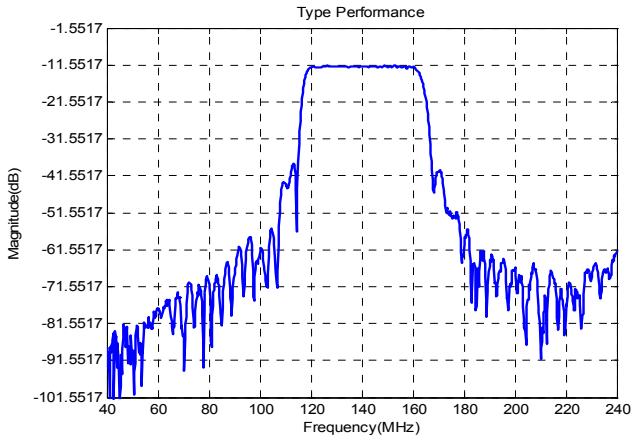


Smith Chart S22



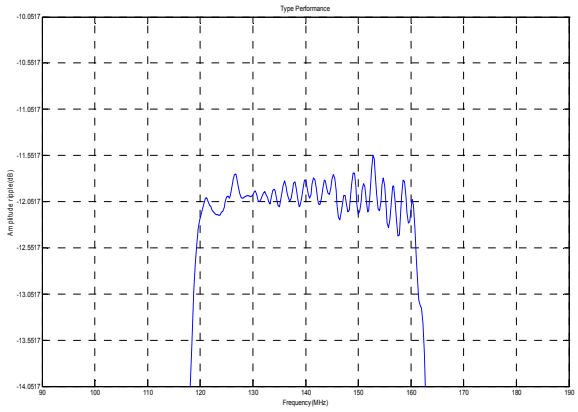
Typical Performance(balance-single)

Frequency Respond



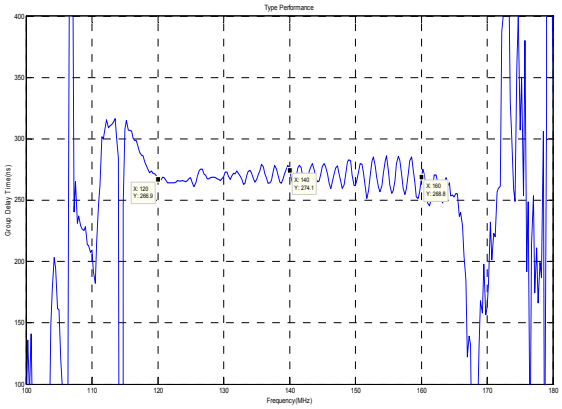
Horizontal: 20MHz/Div Vertical: 10dB/Div

Passband Respond



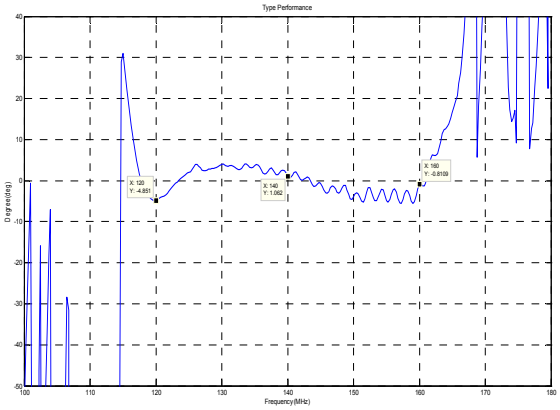
Horizontal: 10MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±20MHz)



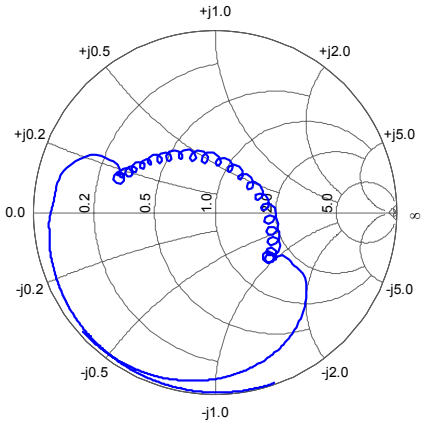
Horizontal: 10MHz/Div Vertical: 50ns/Div

Phase Linearity(f0±20MHz)



Horizontal: 10MHz/Div Vertical: 10deg/Div

Smith Chart S11



Smith Chart S22

