SK3080DE

MSL 3 Device

Band 8, SAW Duplexer Filter
Unbalanced / 8pin / 1612
Rev 1.1

❒Electrical Characteristics

❒Package Dimensions

❒Testing Environment

❒Frequency Characteristics

❒Reflow Condition

❒ Electrical Characteristics

Maximum Ratings

Parameters Description		Unit	Minimum	Typical	Maximum
Operating Temperature Range		°C	-30	-	+85
Storage Temperature Range		°C	-40	-	+85
Maximum DC Voltage		V	-	-	5
Maximum Input Power *(CW signal for 5000h, @55°C)*		dBm	-	-	29
Source Impedance (unbalanced)		Ω	-	50	-
Load Impedance (unbalanced)		Ω	-	50	-
Length x Width		mm^2	-	1.6 x 1.2	-
Height		mm	-	0.55	-
ESD voltage	**CDM**	V	-	-	500
	HBM	V	-	-	250

❒ Electrical Characteristics

Electrical Specification

TX to ANT Parameters Description			Specifications			Unit	Note
			Min.	Typ.	Max.		
Insertion Loss		880 to 915 MHz		1.7	2.8	dB	
Ripple		880 to 915 MHz		0.7	3.6	dB	Any 5MHz
VSWR	TX	880 to 915 MHz		1.9	2.4		
	ANT	880 to 915 MHz		2.0	2.5		
Attenuation		450 to 798 MHz	25	31		dB	
		824 to 862 MHz	26	32		dB	
		927.5 to 957.5 MHz	43	55		dB	
		1226 to 1250 MHz	26	32		dB	
		1559 to 1606 MHz	35	41		dB	
		1760 to 1840 MHz	33	42		dB	
		1840 to 1880 MHz	36	41		dB	
		2010 to 2025 MHz	33	38		dB	
		2110 to 2200 MHz	30	36		dB	
		2300 to 2400 MHz	28	34		dB	
		2400 to 2500 MHz	30	35		dB	
		2620 to 2745 MHz	30	35		dB	
		2496 to 2690 MHz	29	34		dB	
		3300 to 3800 MHz	5	10		dB	

Typical Value at 25±2°C.

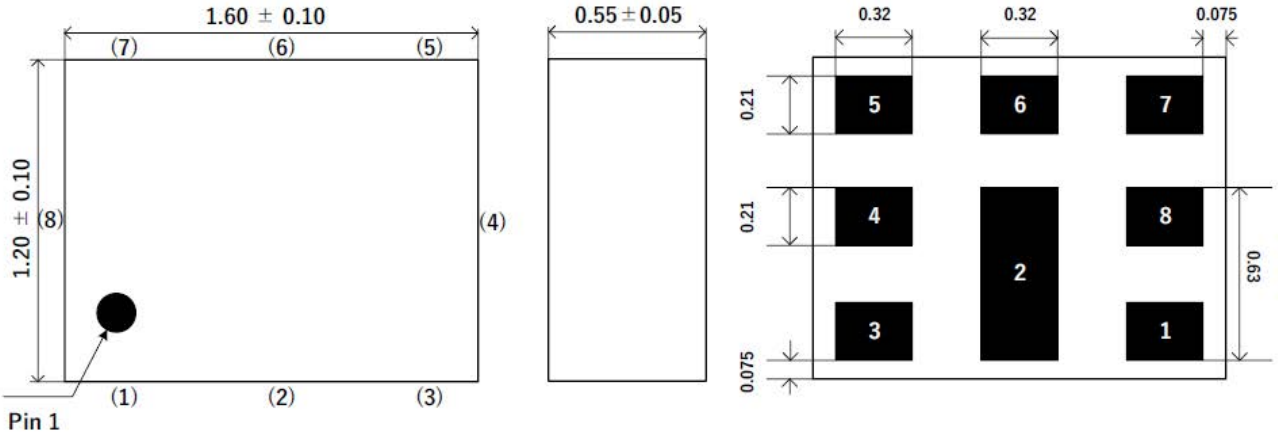
TX to ANT Parameters Description			Specifications			Unit	Note
			Min.	Typ.	Max.		
Insertion Loss		927.5 to 957.5 MHz		1.8	2.7	dB	
Ripple		925 to 960 MHz		0.8	4.0	dB	Any 5MHz
VSWR	RX	925 to 960 MHz		1.8	2.3		
	ANT	925 to 960 MHz		2.0	2.5		
Attenuation		450 to 824 MHz	36	42		dB	
		882.5 to 912.5 MHz	43	51		dB	
		1710 to 1785 MHz	40	47		dB	
		1850 to 1915 MHz	42	51		dB	
		1920 to 1980 MHz	42	53		dB	
		2010 to 2025 MHz	42	50		dB	
		2300 to 2400 MHz	45	54		dB	
		2400 to 2500 MHz	45	54		dB	
		2496 to 2690 MHz	45	54		dB	
		3300 to 3800 MHz	30	36		dB	

Typical Value at 25±2°C.

TX to RX Parameters Description		Specifications			Unit	Note
		Min.	Typ.	Max.		
Isolation	882.5 to 912.5 MHz	51	55		dB	
	927.5 to 957.5 MHz	50	56		dB	

Typical Value at 25±2°C.

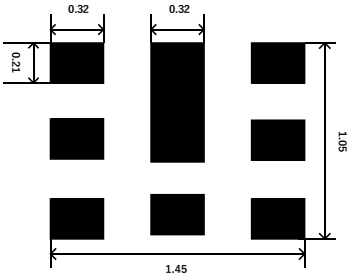
❒ Package Dimensions



Top View **Front View** **Bottom View**

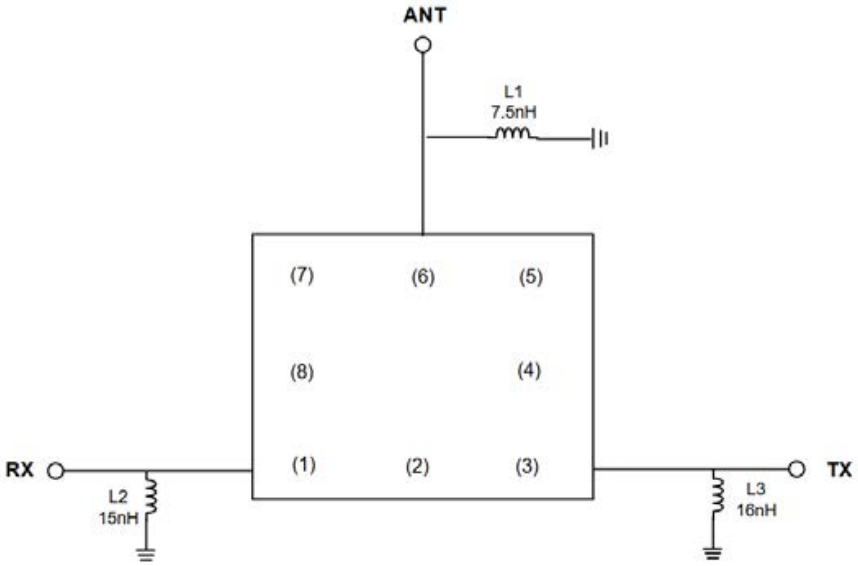
Pin Description	
2,4,5,7,8	Ground
6	Ant
3	Tx
1	Rx

Land Pattern



Unit: mm

❒ Testing Environment

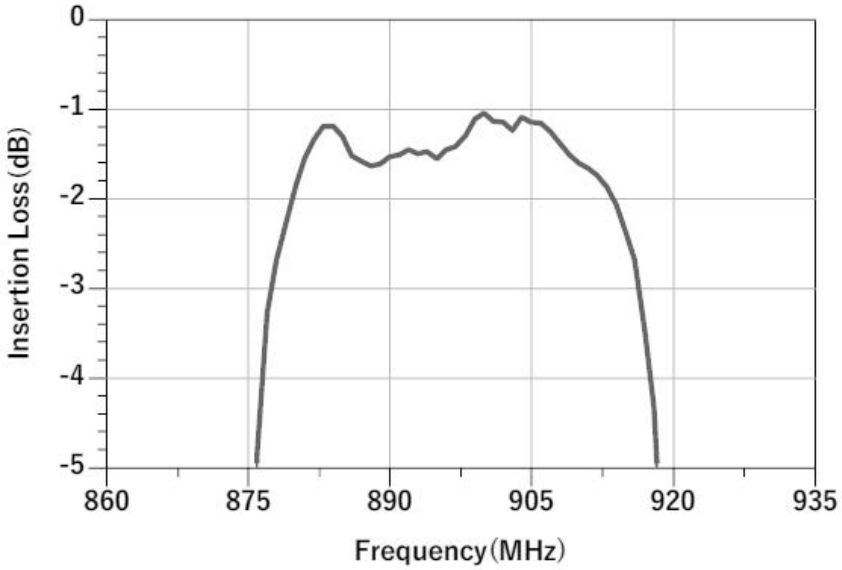


Source & Load Impedance:50Ω

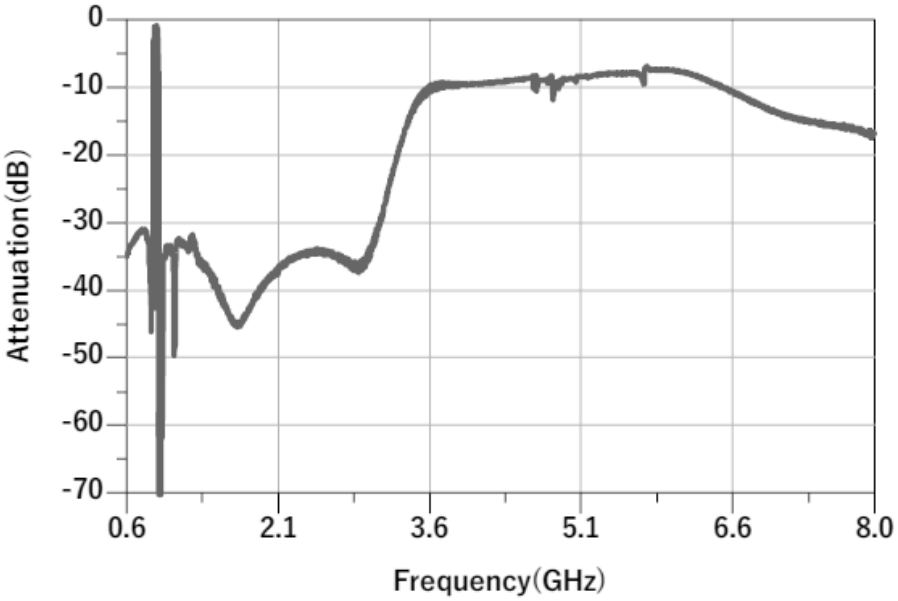
❒ Frequency Characteristics

TX to ANT

Passband

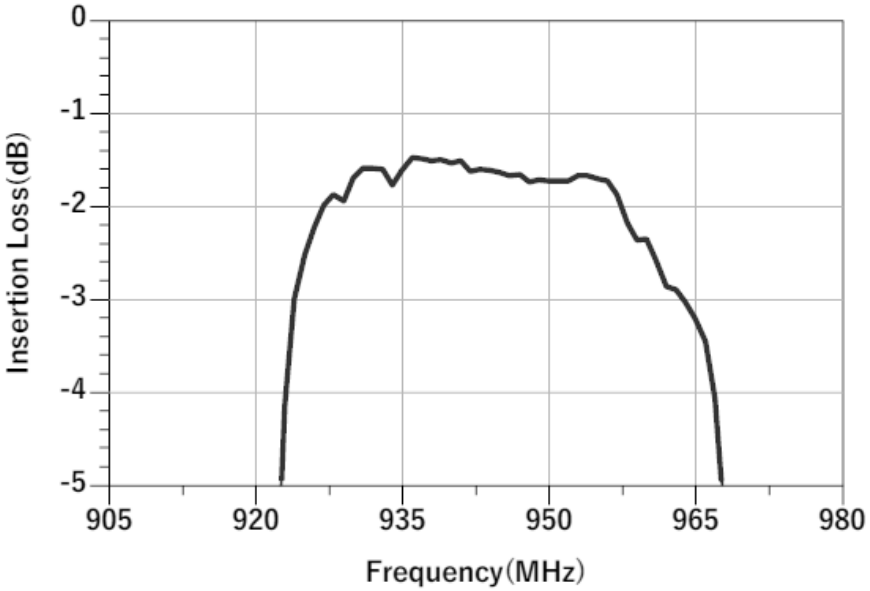


Wideband

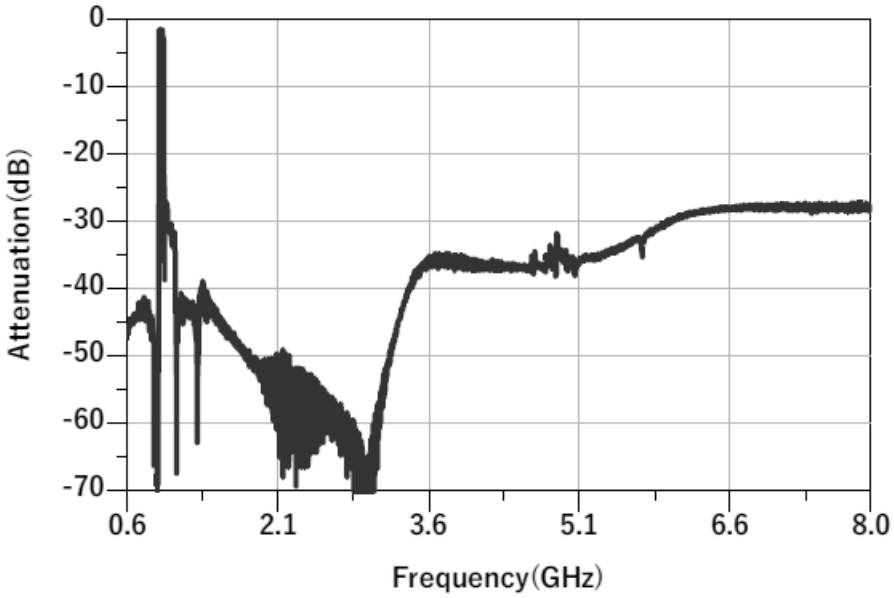


ANT to RX

Passband

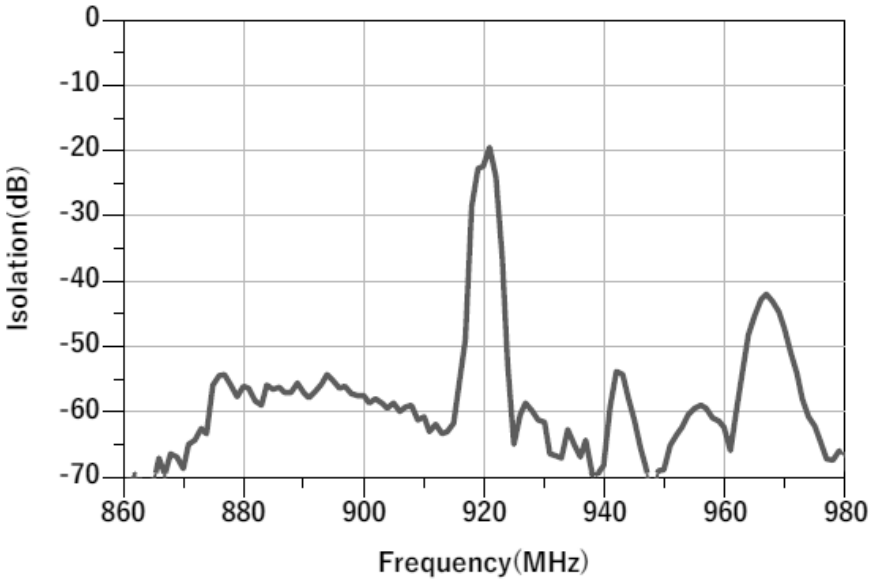


Wideband



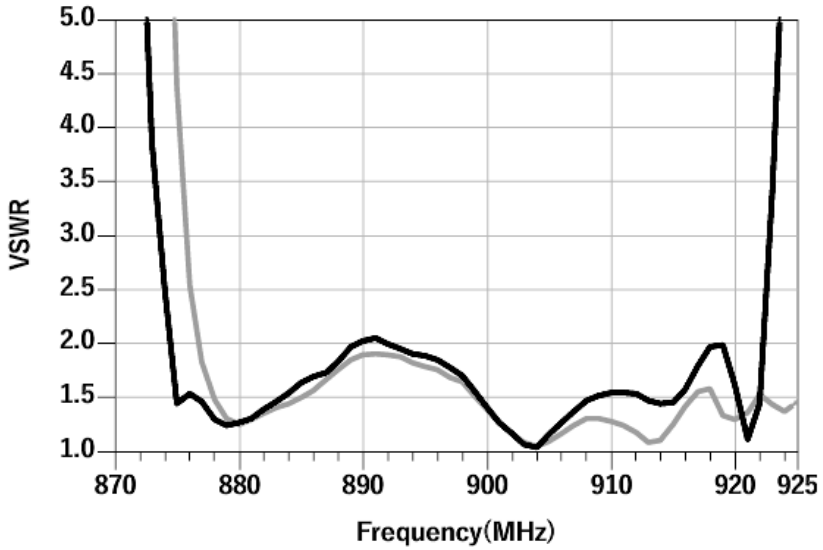
Isolation

TRX Isolation

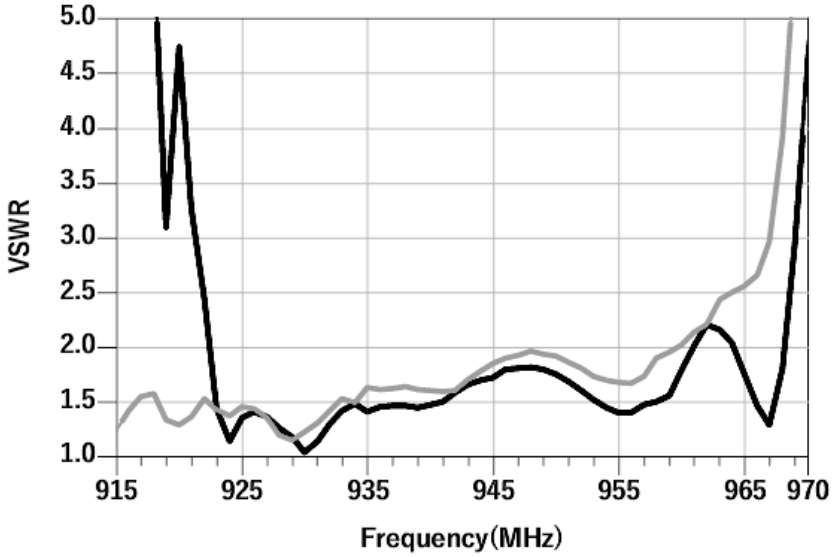


VSMR

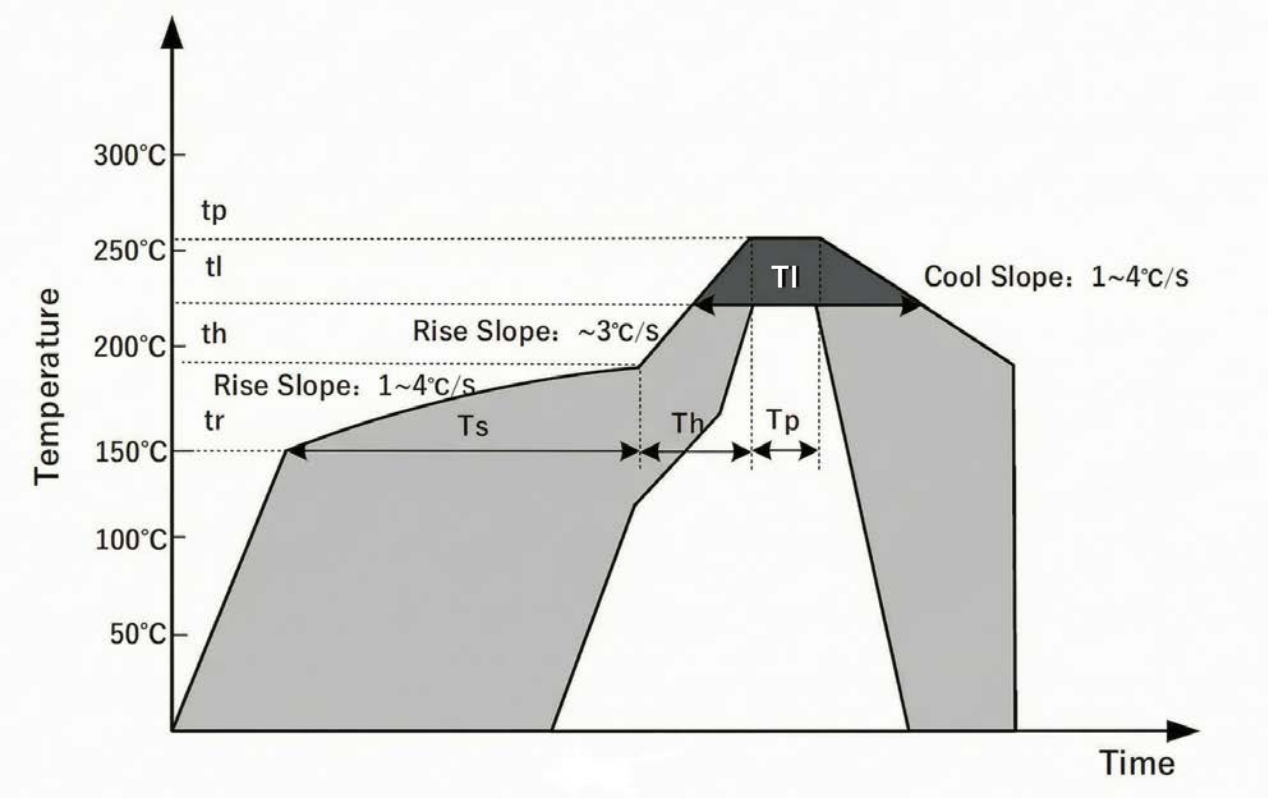
TX/ANT VSWR



RX/ANT VSWR



❒ Reflow Condition



Reflow Parameter	Values
Preheating time T_S	50 ~ 110s
Temperature tr	~150°C
Time Th	~30s
Temperature th	~180°C
Peak Time Tp	~10s
Peak Temperature tp	~255°C min
Time Tl	~230°C
Temperature tl	~50s max