

- FBAR Duplexer For US-PCS
- Revision 1: January 2009

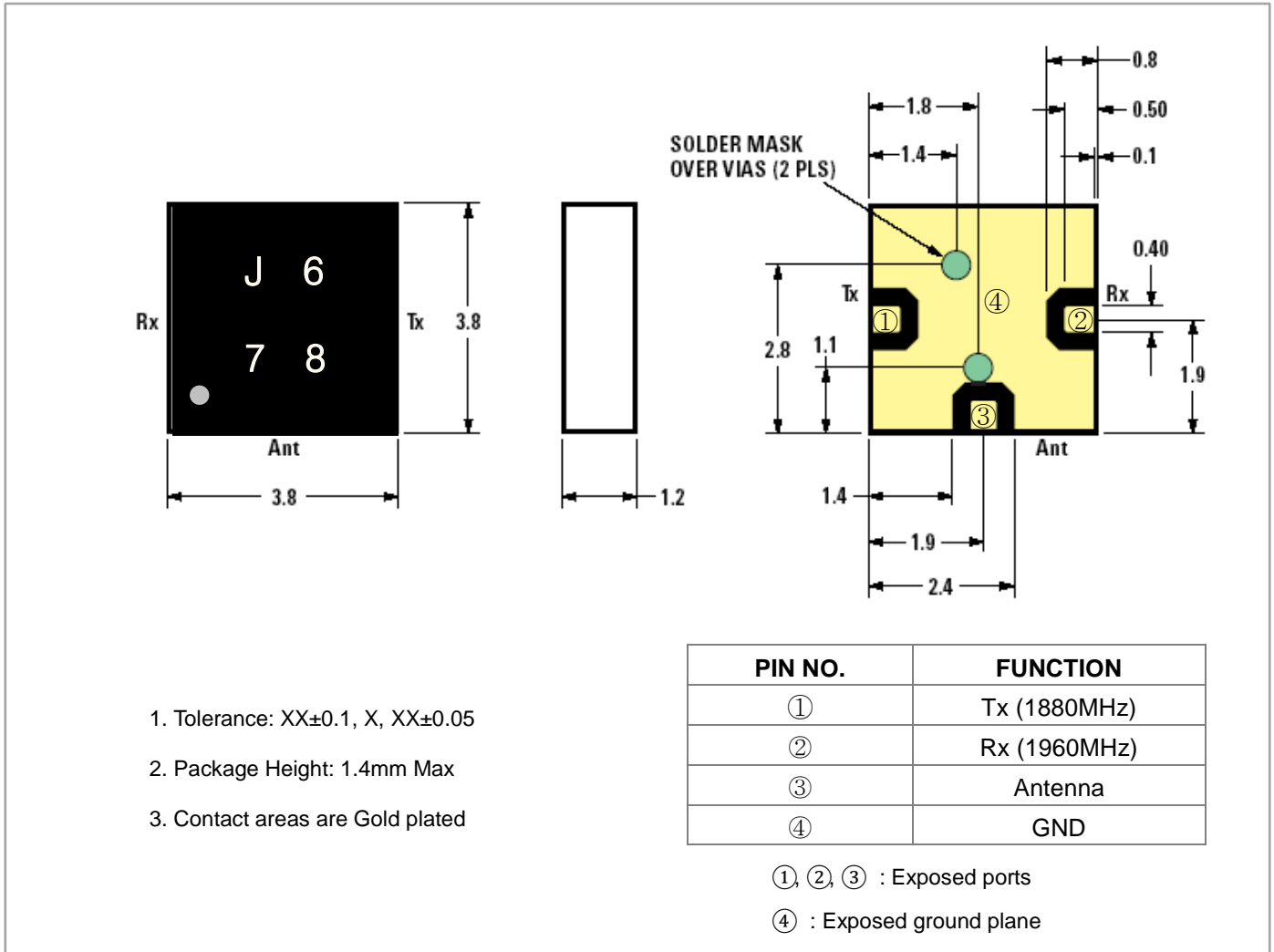
Electrical Characteristics

MAXIMUM RATING				
PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Operating Temperature Range	°C	-30	-	+85
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	-	0	-
Maximum Input Power	W	1.0		
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Package type & size	PA			
Length x Width	mm ²	-	3.8 x 3.8	-
Height	mm	-	-	1.4

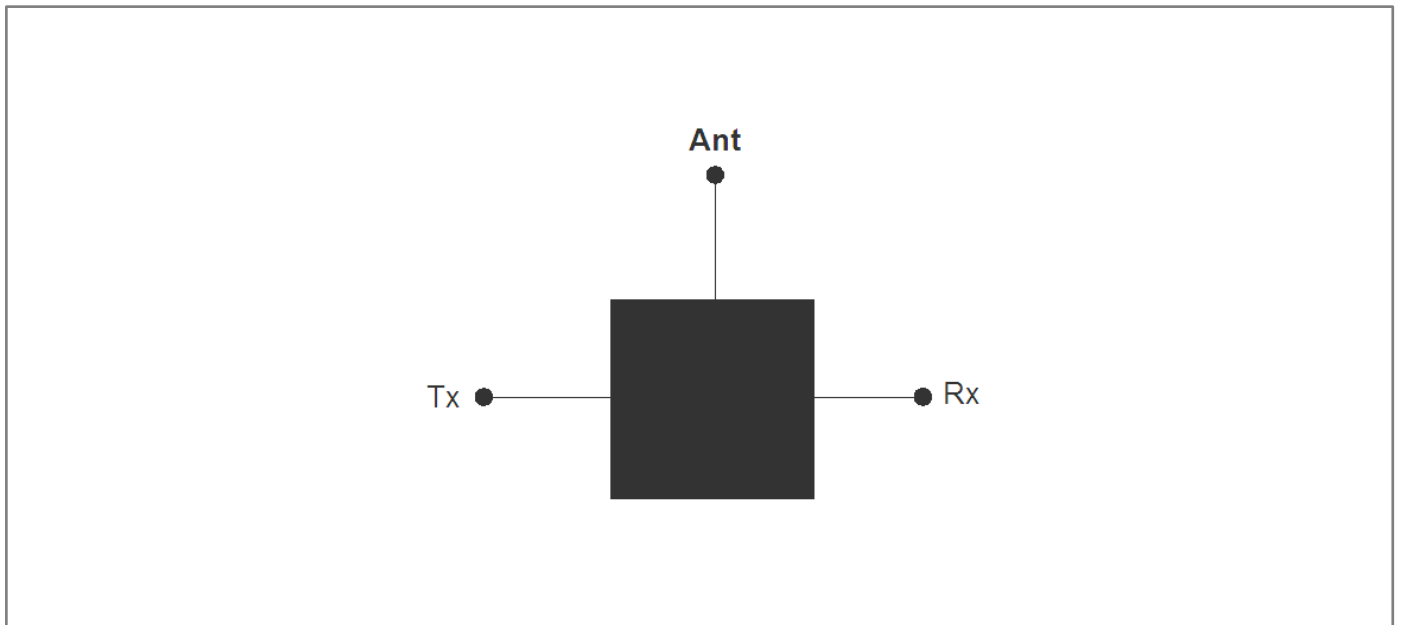
ELECTRICAL SPECIFICATION					
PARAMETERS	CONDITION [MHZ]	UNIT	MINIMUM	TYPICAL	MAXIMUM
Tx → Ant		Specifications (+25°C)			
Insertion Loss	1850.6 ~ 1909.4	dB	-	1.5	3.0
Passband Ripple	1850.6 ~ 1909.4	dB	-	1.0	2.0
Return Loss	1850.6 ~ 1909.4	dB	9.5	14	-
Attenuation	1930.6 ~ 1989.4	dB	43	48	-
Ant → Rx		Specifications (+25°C)			
Insertion Loss	1930.6 ~ 1989.4	dB	-	2.0	3.5
Passband Ripple	1930.6 ~ 1989.4	dB	-	1..1	2.6
Return Loss	1930.6 ~ 1989.4	dB	9.5	16	-
Attenuation	1850.6 ~ 1909.4	dB	50	55	-
Tx → Rx		Specifications (+25°C)			
Isolation	1850.6 ~ 1909.4	dB	54	57	-
	1930.6 ~ 1989.4	dB	45	50	-

ELECTRICAL SPECIFICATION					
PARAMETERS	CONDITION [MHZ]	UNIT	MINIMUM	TYPICAL	MAXIMUM
Tx → Ant		Specifications (-30 ~ +85°C)			
Insertion Loss	1850.6 ~ 1909.4	dB	-	-	3.5
Passband Ripple	1850.6 ~ 1909.4	dB	-	-	2.8
Return Loss	1850.6 ~ 1909.4	dB	9.5	-	-
Attenuation	1930.6 ~ 1989.4	dB	43	-	-
Ant → Rx		Specifications (-30 ~ +85°C)			
Insertion Loss	1930.6 ~ 1989.4	dB	-	-	3.8
Passband Ripple	1930.6 ~ 1989.4	dB	-	-	3.0
Return Loss	1930.6 ~ 1989.4	dB	9.5	-	-
Attenuation	1850.6 ~ 1909.4	dB	50	-	-
Tx → Rx		Specifications (-30 ~ +85°C)			
Isolation	1850.6 ~ 1909.4	dB	54	-	-
	1930.6 ~ 1989.4	dB	45	-	-

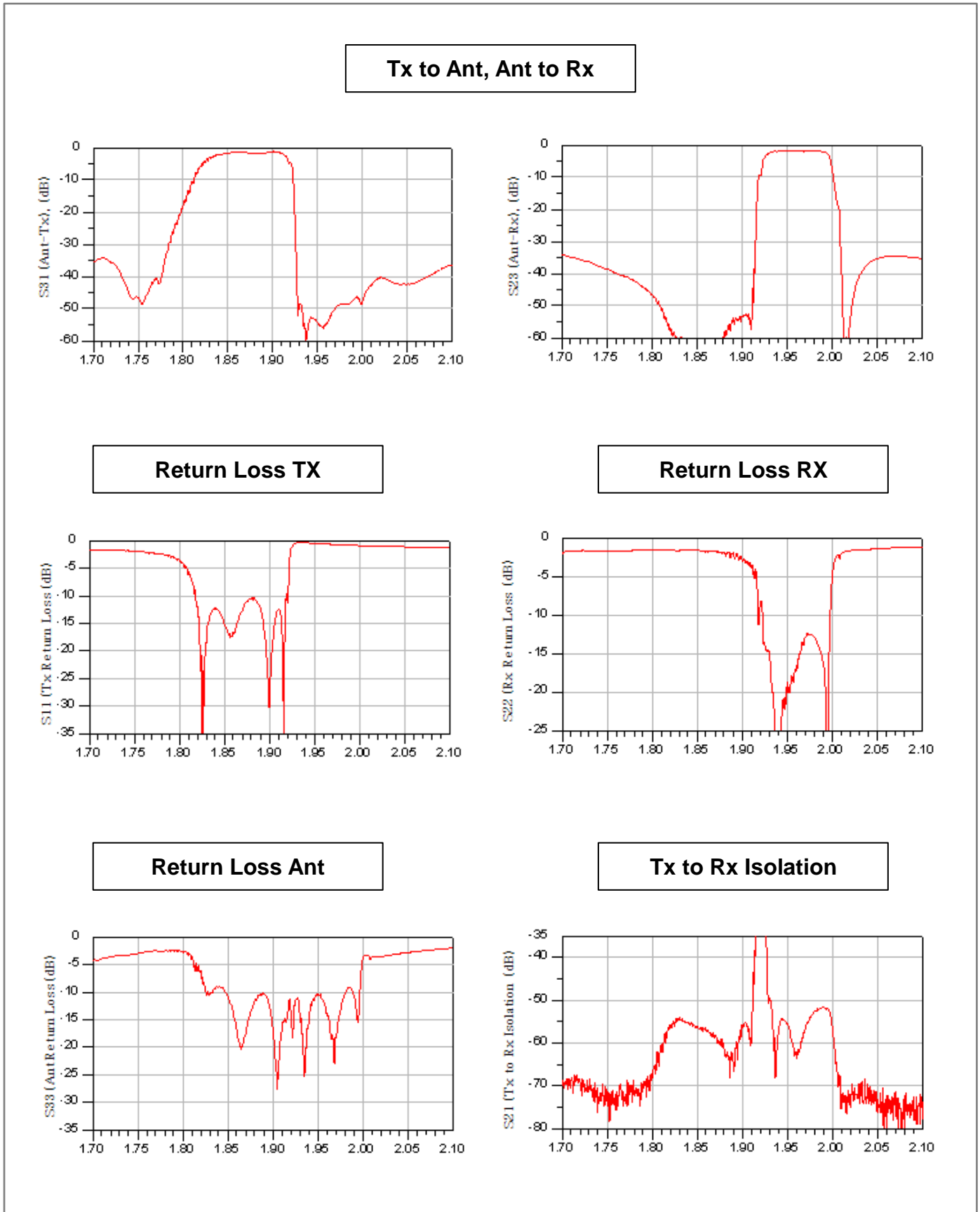
Package Dimensions



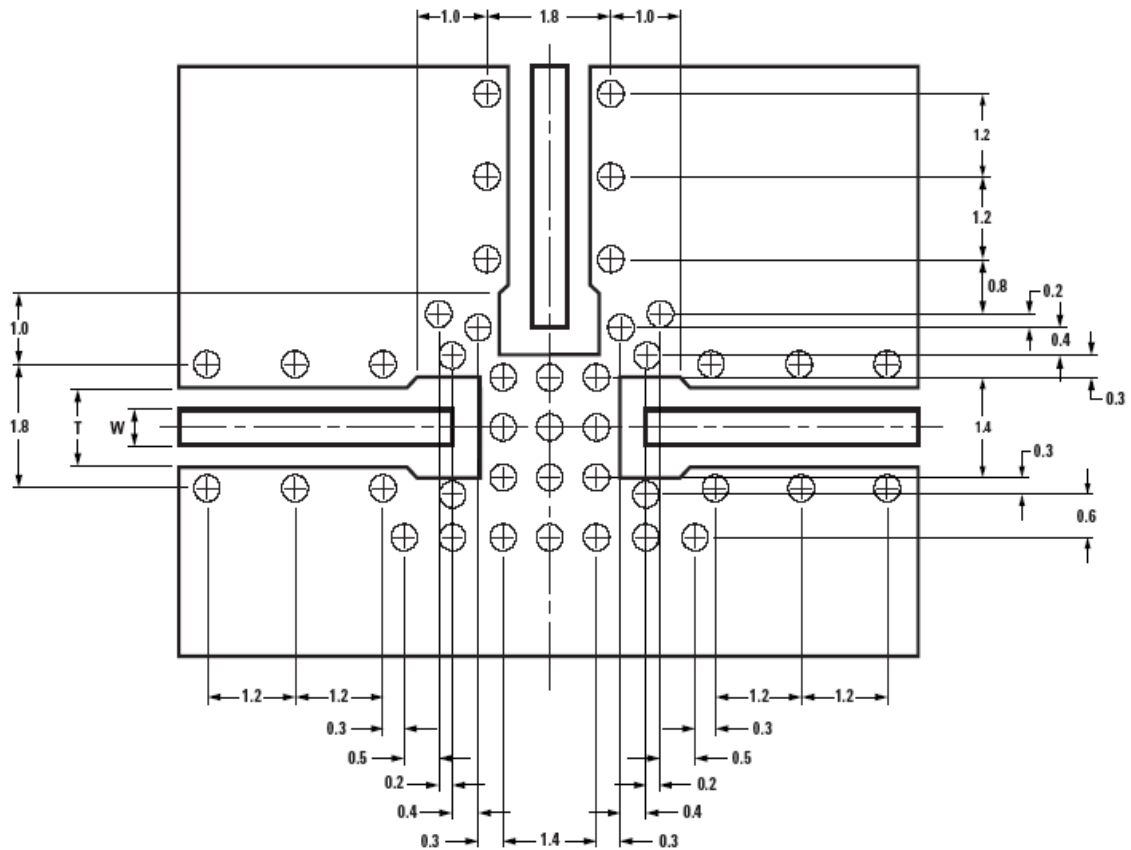
Testing Environment



Frequency Characteristics



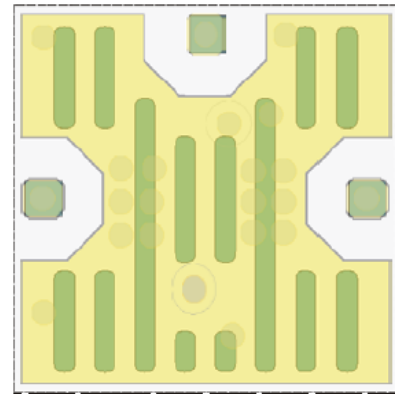
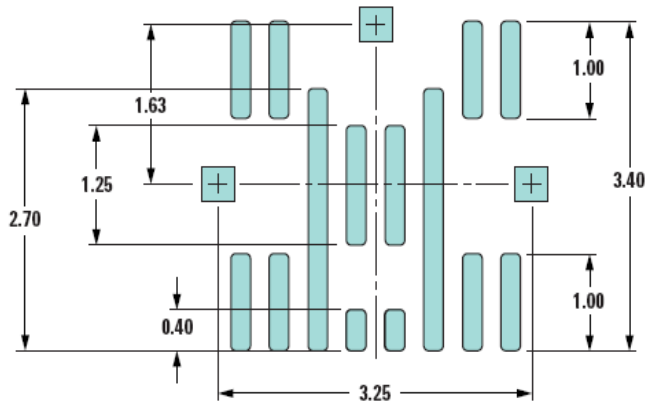
Recommended PCB Layout Print



※ **Notes:**

- ✓ Dimensions in millimeters (mm)
- ✓ All via are Φ 0.40
- ✓ Angles 45°
- ✓ RF ports are CPW
- ✓ T & W selected for 50 Ω
- ✓ Pattern centered on duplexer

Recommended Solder Stencil



Duplexer superposed on solder stencil

※ **Notes:**

- ✓ Dimensions in millimeters (mm)
- ✓ Solder stripes (14pls) are 0.20wide, pitch
- ✓ Solder pads for I/O are 0.35x0.35
- ✓ Stencil pattern is centered on duplexer