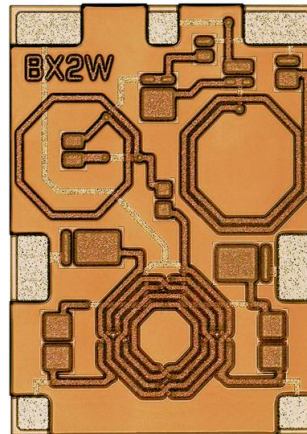


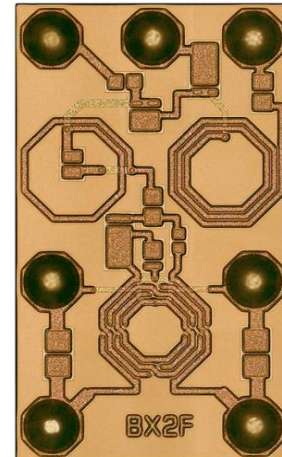
# (31) WiMax Band Balanced Filter (SCI-602 W/F)

## FEATURES

- Passive integration on silicon substrate
- Low insertion loss in pass band
- Small size: 1.6 mm x 1.2 mm (wirebond)  
2.0 mm x 1.2 mm (flip chip)
- Pb-free solder bump
- Low profile: 0.25 mm height (wirebond)  
0.40 mm height (flip chip)
- Directly attachable on PCB or flipped on PCB
- Operating temperature: -40°C to +85°C
- Storage temperature: -40°C to +85°C



SCI-602W (Wirebond)



SCI-602F (Flip Chip)

## DESCRIPTION

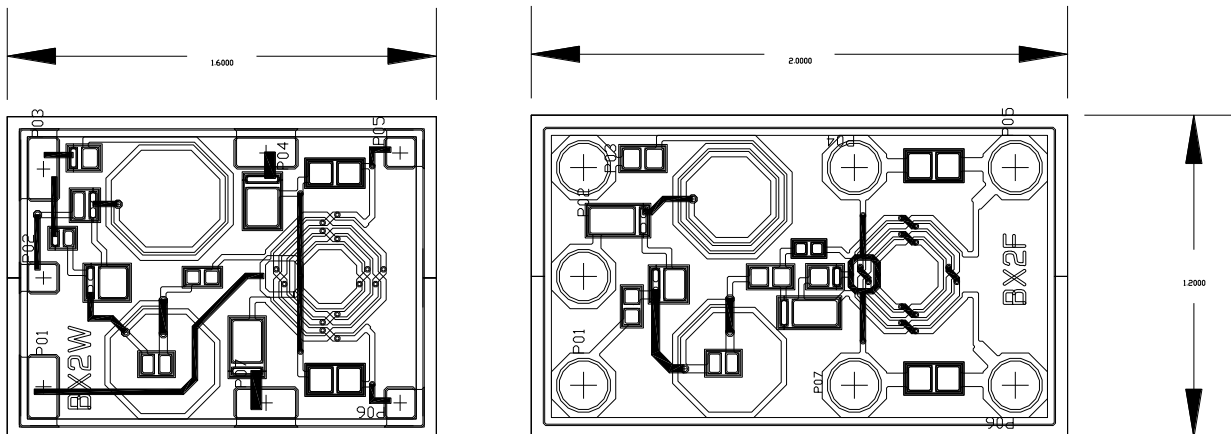
STATS ChipPAC's SCI-602W/F is a balanced filter for WiMax band applications. The IPD has low pass-band insertion loss and small size. It is composed of thick copper inductors and Metal-Insulator-Metal capacitors which are fabricated on a silicon substrate using our IPD (Integrated Passive Device) process. The pad or bump size and pitch of the IPD are selected so that the device can be mounted directly on a PCB or laminate substrate using conventional wirebonding or surface mount techniques. The low profile and small form-factor of the device make it especially suitable for SiP applications.

## ELECTRICAL SPECIFICATIONS

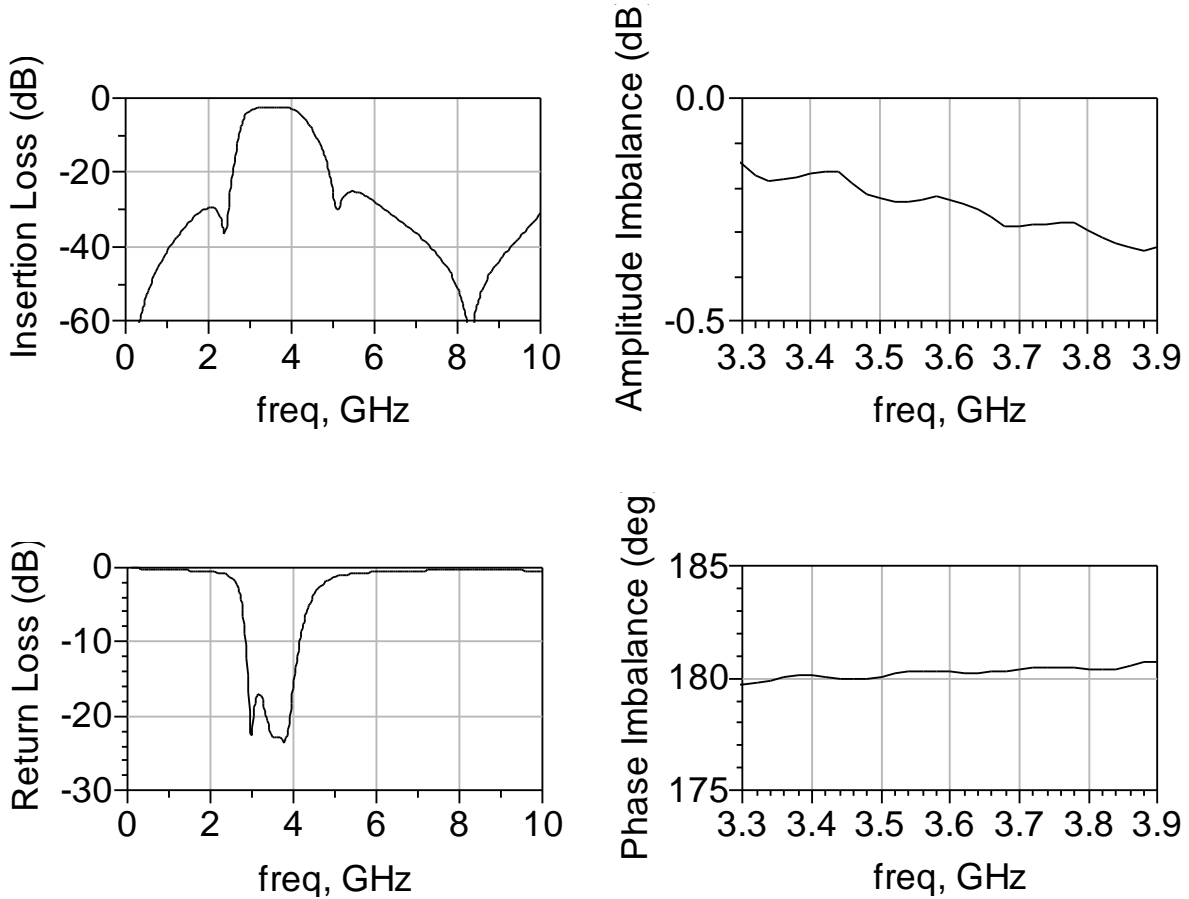
(Test board loss 0.2 dB included)

Specification	Unit	Min.	Typical	Max.
Pass Band	MHz	3300		3900
Insertion Loss	dB			2.6
Return Loss	dB		15	
Differential Impedance	Ohm		100	
Amplitude Imbalance	dB			0.4
Phase Imbalance	deg			1.0
Attenuation, DC-2450 MHz	dB	30		
Attenuation, 4900-10000 MHz	dB	20		
Size	mm	1.6 x 1.2 (WB)		2.0 x 1.2 (FC)

## DIMENSIONS

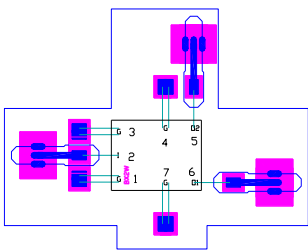


## TYPICAL CHARACTERISTICS

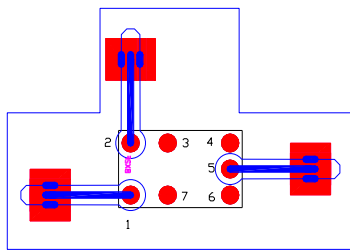


## TEST BOARD DRAWING

**SCI-602W (Wirebond)**



**SCI-602F (Flip Chip)**



Pad	SCI-602W Signal	SCI-602F Signal
1	GND	Balanced (+)
2	Unbalanced	Balanced (-)
3	GND	GND
4	GND	GND
5	Balanced (+)	Unbalanced
6	Balanced (-)	GND
7	GND	GND

## NOTES

All dimension measurement units are in millimeters (mm). Electrical performance and typical values are measured at room temperature. For best results, ground plane directly beneath the device should be in the top metal layer.

Refer to "Appendix A" for:

- Pad sizes and typical wirebond length used in the wirebonded IPD products.
- Recommended solder thermal profile, landing pattern recommendation and bump specifications used in the flip chip IPD products.