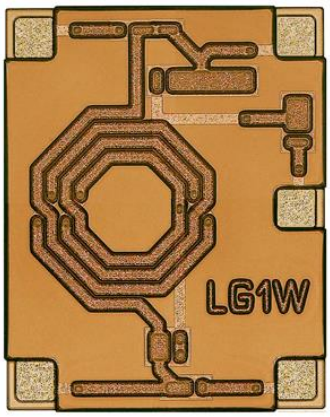
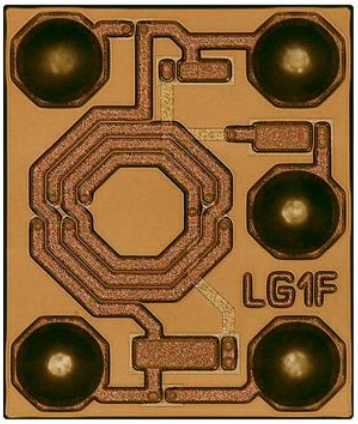
(17) GSM Band Low Pass Filter (SCI-203W/F)

FEATURES

- Passive integration on silicon substrate
- Low insertion loss in pass band
- Small size: 1.0 mm x 1.2 mm (wirebond)
  1.0 mm x 1.2 mm (flip chip)
- Eutectic Sn/Pb or lead-free solder bump
- Low profile, 0.40 mm height
- Directly attachable on PCB or flipped on PCB
- Operating temperature: -40 to +85 ℃
- Storage temperature: -40 to +85 ℃



SCI-203W (Wirebond)



SCI-203F (Flip Chip)

DESCRIPTION

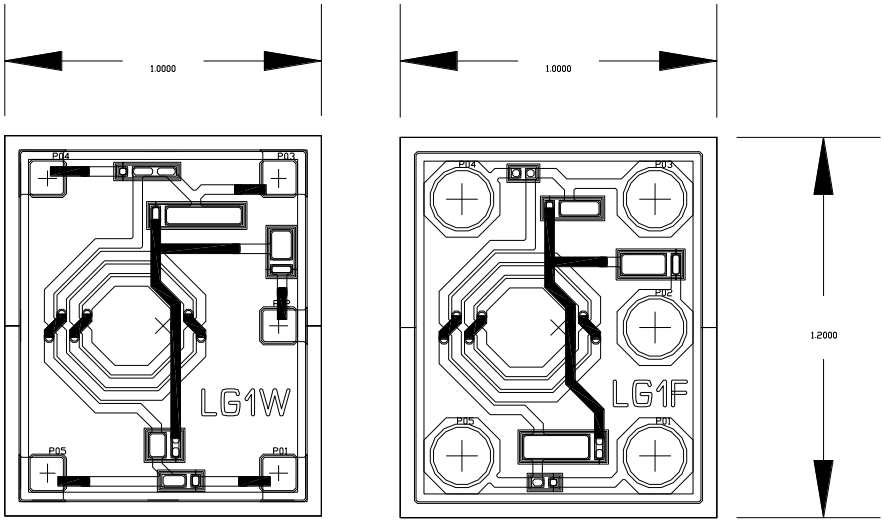
STATS ChipPAC's SCI-203W/F is a low pass filter (LPF) for GSM band applications. The LPF has low pass-band insertion loss and small size. It is composed of 8.0 um Cu-plated inductors and Metal-Insulator-Metal capacitors which are fabricated on a silicon substrate using our IPD (Integrated Passive Device) process. The pad or bump size and pitch of the LPF are selected so that the device can be mounted directly on a PCB or laminate substrate using conventional wire-bonding or surface mount techniques. The low profile and small form-factor of the device make it especially suitable for SiP applications.

ELECTRICAL SPECIFICATIONS

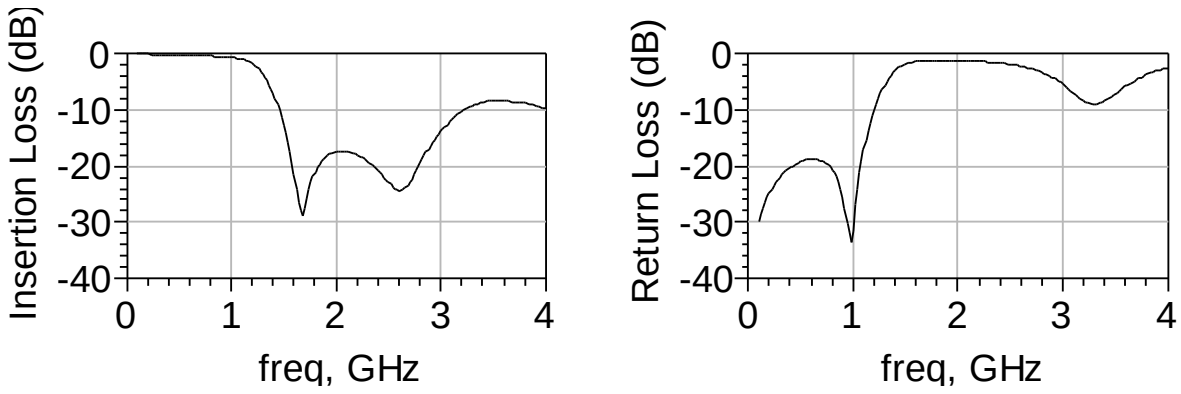
(Test board loss 0.04 dB included)

Specification	Unit	Minimum	Typical	Maximum
Pass Band	MHz	824		915
Insertion Loss	dB		0.6	
Return Loss	dB	20		
Attenuation, 2f0	dB		20	
Attenuation, 3f0	dB		20	
Size	mm	1.0 x 1.2 (WB)		1.0 x 1.2 (FC)

DIMENSIONS

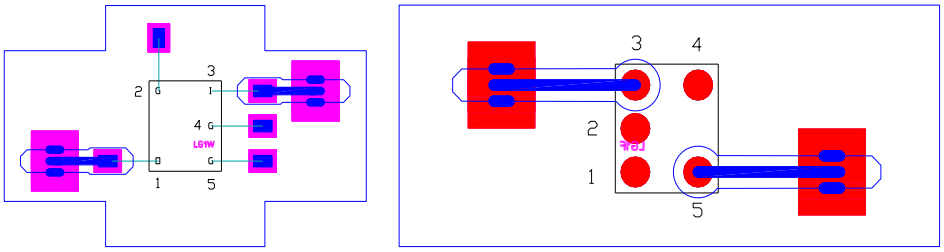


TYPICAL CHARACTERISTICS



TEST BOARD DRAWING

SCI-203W (Wirebond) ***SCI-203F (Flip Chip)***



Pad	SCI-203W Signal	SCI-203F Signal
1	Input	GND
2	GND	GND
3	Output	Input
4	GND	GND
5	GND	Output

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.