

GPS PRODUCTS

Samples and evaluation boards are available and can be requested at <http://www.johansontechnology.com/contact/sample/>.

| PRODUCT | JTI P/N | SPECS | SIZE | APPLICATION COMMENTS | |
|---------------------|---------------|------------------------|---------------------|--|--|
| Antenna (Chip) | 1575AM55A0001 | Antenna | | Case L= 0.473 (12.0) W=0.473 (12.0) T= 0.049 (1.25) | Active GPS antenna with integrated LNA in compact form factor (12 x 12 x 1.25 mm) Designed for GPS L1 applications. High gain, low noise and extra low power consumption. Currently used in SiRF Star III chipset. |
| | | Center Frequency (MHz) | 1575.42 | | |
| | | Peak Gain (XZ-V) | -1.5 dBi typ | | |
| | | Average Gain (XZ-V) | -2.5 dBi typ | | |
| | | Return Loss (min) | 9.5 dB min. | | |
| | | Low Noise Amplifier | | | |
| | | Center Frequency (MHz) | 1575.42 | | |
| | | Gain (dB) | 28.5 typ. / 27 min. | | |
| | | Noise (dB) | 1.4 typ. / 1.6 max. | | |
| | | Return Loss | 9.5 dB min. | | |
| | | Voltage | 2.5 - 5.5 V | | |
| | | Current | 8.5 typ. / 10 max. | | |
| | | Total | | | |
| | | Center Frequency (MHz) | 1575.42 | | |
| | | Peak Gain (XZ-V) | 24 dBi typ. | | |
| Average Gain (XZ-V) | 22 dBi typ. | | | | |
| Return Loss (min) | 5.1 dB min. | | | | |
| Antenna (Chip) | 1575AT43A40 | Frequency (MHz) | 1555 - 1595 | Case 43-1 L= 0.276 (7.00) W=0.079 (2.00) T= 0.047 (1.20) | Compact form factor (7 x 2 x 1.2 mm) Designed for GPS L1 application. Good omni-directional performance. |
| | | Peak Gain (XZ-V) | -1.5 dBi typ | | |
| | | Average Gain (XZ-V) | -2.5 dBi typ | | |
| | | Return Loss (min) | 9.5 dB min. | | |

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|----------------|--------------|-------------------------------|--------------|---|---|
| Antenna (Chip) | 1575AT47A40 | Frequency (MHz) | 1555 - 1595 | Case 47-1 L= 0.394 (10.0) W=0.118 (3.00) T= 0.030 (0.77) | Compact form factor (10 x 3 x 0.77 mm) Designed for GPS L1 application. Good gain performance. |
| | | Peak Gain (XZ-V) | -1.0 dBi typ | | |
| | | Average Gain (XZ-V) | -3.0 dBi typ | | |
| | | Return Loss (min) | 9.5 dB min. | | |
| Balun | 1600BL15B050 | Frequency (MHz) | 1500 - 1700 | Case 15-1B L= 0.079 (2.00) W=0.049 (1.25) T= 0.035 (0.90) | 1:1 balun in EIA 0805 profile for 1.5 - 1.7 GHz. Good I.L, R.L and phase performance in band. |
| | | Impedence Unbalanced/Balanced | 50/50 | | |
| | | Insertion Loss (max) | 1.0 dB | | |
| | | Return Loss (min) | 9.5 dB | | |
| | | Phase Difference | 180°±10° | | |
| | | Amplitude Difference (max) | 2.0 dB | | |
| Balun | 1600BL15B100 | Frequency (MHz) | 1500 - 1700 | Case 15-1C L= 0.079 (2.00) W=0.049 (1.25) T= 0.033 (0.85) | 2 :1 balun in EIA 0805 profile for 1.5 - 1.7 GHz. Good I.L, R.L and phase performance in band. |
| | | Impedence Unbalanced/Balanced | 50/100 | | |
| | | Insertion Loss (max) | 1.0 dB | | |
| | | Return Loss (min) | 9.5 dB | | |
| | | Phase Difference | 180°±10° | | |
| | | Amplitude Difference (max) | 2.0 dB | | |

Sr. Applications Engineer
WaiSan Wong, MsEE
Voice: 805-389-1166 ext 1153
Fax: 805-389-1821

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Johanson Technology
4001 Calle Tecate
Camarillo, CA 93012 USA
Voice: 805-389-1166
Fax: 805-389-1821