

# 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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PRODUCT	JTI P/N	SPECS		SIZE	APPLICATION COMMENTS
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.
		Impedance 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.
		Impedance 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		

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