

# DATA SHEET

## WIRELESS COMPONENTS

Ceramic Patch Antenna  
ANT1818B00BT1516S

GPS & GLONASS  
SMD 18 × 18 × 4 mm



FEATURES

- Support GPS & GLONASS system
- High radiation efficiency
- Reflow process compatible
- RoHS compliant

APPLICATIONS

- Navigation device
- Telematics box
- Fleet management

ORDERING INFORMATION

All part numbers are identified by the series, packing type, material, size, antenna type, working frequency and packing quantity.

**PART NUMBER**

**ANT 1818 B 00B T 1516S**  
 (1) (2) (3) (4) (5) (6)

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(1) PRODUCT

ANT = Antenna

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(2) SIZE

1818 = 18 × 18 mm

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(3) ANTENNA TYPE

B = Bulk Antenna

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(4) SERIAL NO.

00B

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(5) PACKING STYLE

T = Tray

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(6) WORKING FREQUENCY

1516 = 1.575/1.602 GHz

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PHYCOMP CTC

CAN43934240B1561B

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I2NC

43934240B156

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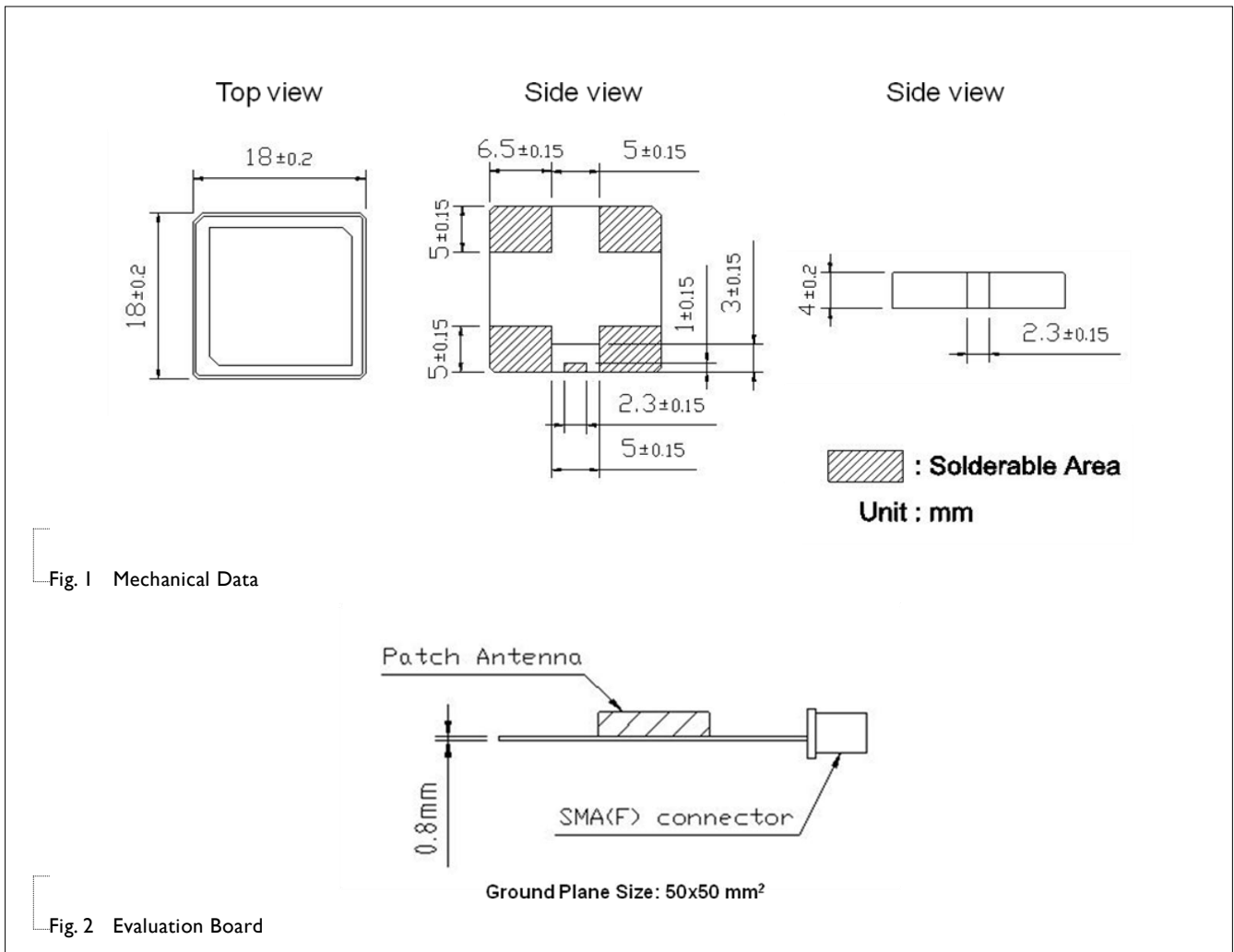
**SPECIFICATION**

Table 1

DESCRIPTION	VALUE
Operating Frequency	1575~1606 MHz
Bandwidth	GPS: 7 MHz(Typ.) Glonass: 7 MHz(Typ.)
Gain	GPS: 1.89 dBi (Typ.) Glonass: 2.59 dBi (Typ.)
VSWR	2.0 Max.
Polarization	RHCP
Axis Ratio	$\leq 12$ dB
Impedance	50 $\Omega$
Operating Temperature	-40~105 °C

**NOTE**

1. Based on 50×50mm<sup>2</sup> square ground plane.
2. Centre frequency will be offset to working frequency while changes of customer's housing and ground plane.
3. Please contact local sales if you need customized design to gain optimum antenna performance.



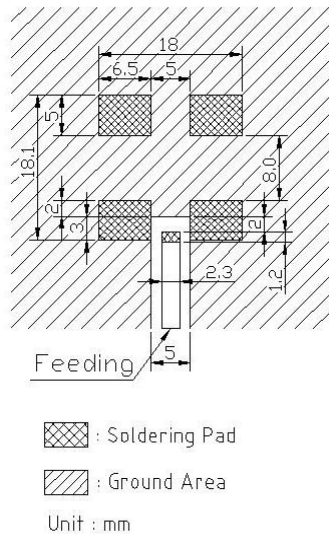
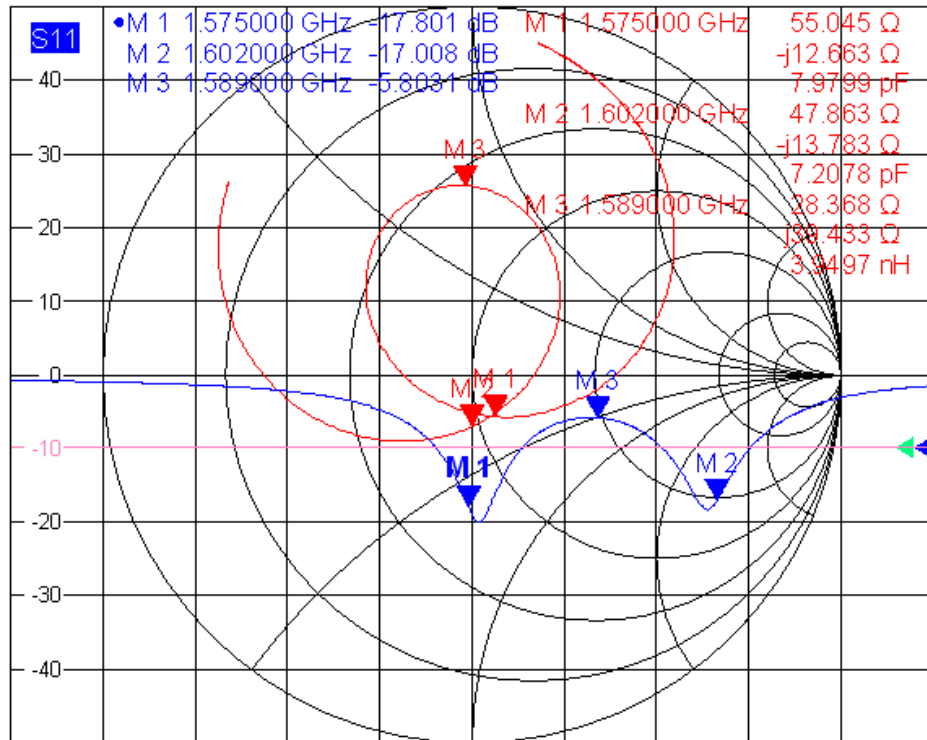


Fig. 3 Footprint

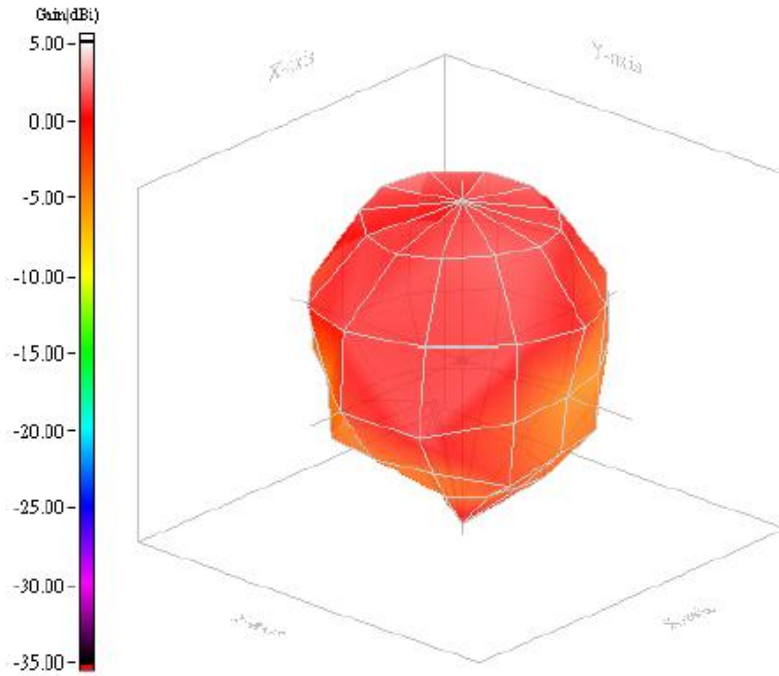
**ELECTRICAL PERFORMANCES**

Trc1 **S11** dB Mag 10 dB / Ref -10 dB Cal 1 of 1 (Max)  
 Trc2 **S11** Smith Ref 1 U Cal  
 Mem3[Trc1] **S11** dB Mag 10 dB / Ref -10 dB Invisible  
 Mem4[Trc2] **S11** Smith Ref 1 U Invisible



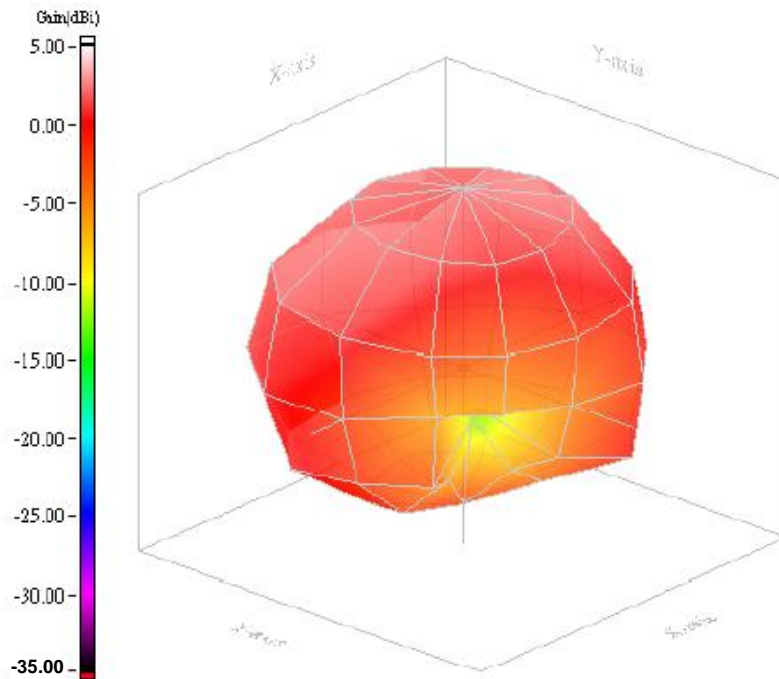
Ch1 Center 1.57542 GHz Pwr 0 dBm Span 100 MHz

Fig. 4 Return loss



**3D radiation pattern**

Fig. 5  
Radiation Pattern (Frequency = 1575MHz)



**3D radiation pattern**

Fig. 6  
Radiation Pattern (Frequency = 1602MHz)

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
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Version 0	Apr. 21, 2015	-	- New data sheet for Patch antenna, SMD Feed size 18×18×4 mm
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