

# T440

## Full-Band GNSS Antenna



✧ Full GNSS Band Supported:

BDS	B1A/B1I/B1C/B2I/B2a/B2b/B3A/B3AE/B3Q
GPS	L1/L2/L5
GLONASS	G1/G2/G3
GALILEO	E1/E5a/E5b/E6
ABAS	L1/L5
QZSS	L1/L2/L5/L6
IRNSS	L5

L-Band

- ✧ Frequency Rang:(1166MHz~1278MHz and1521MHz~1608MHz)
- ✧ Gain: 40dB
- ✧ Operation voltage: 3.3V~16VDC
- ✧ Within vertical plane wide-angle, phase center is stability
- ✧ Multi-satellites, Multi- frequency antenna
- ✧ High gain and Wide beamwidth, to ensure receiving satellite signal at low elevation angle
- ✧ Multi-path rejection board inside , High measurement accuracy
- ✧ LAN amplifier including band filter

GEMS NAVIGATION Electronics Co.,Ltd.

Floor 2, building 6, rundongsheng Industrial Zone,

Longzhu community, Xixiang street, Bao'an District, Shenzhen China

Tel: +86-755-29644311

Fax: +86-755-29644383

Email: sales@gemsnav.com

Document Number 120203 Rev 008 2023-05-19 Page 1 / 4



The directory describes the Specifications of the antenna T440, dimensions, connectors, and other information, Through this directory, you can quickly determine the products you need.

[www.gemsnav.com](http://www.gemsnav.com)

### Main feature

T440 is a set of GPS L1 & L2& L5 , GLONASS G1 & G2 , Beidou2 B1,B2,B3 and Galileo E1,E2,E5a,E5b four-system active antenna, can be widely used in geodesy, bridge construction, marine surveying, underwater topography measurement etc.

The antenna using multi feedpoint design, ensure the antenna phase center and the geometric center of the coincidence, improve the accuracy of measurement. Antenna element has high gain and wide beamwidth to ensure the signal receiving performance of satellite at low elevation angle. Multi-path rejection board inside can eliminate the multi-path influence to measurement error. Built-in low noise amplifier module, through the multi-stage filter to eliminate interference signal ,ensure the normal work in harsh electromagnetic environment.

### Specifications:

● Frequency [MHz]	1521MHz~1608MHz/1166MHz~1278MHz
● Input impedance:	50Ω
● Gain [dBi]	40±2(LNA included)
● Polarization	right-hand circular polarized (RHCP)
● Axial ratio[dB]	≤3
● ontal coverage angle	360°
● Maximum gain	5.5dBi
● Output (VSWR)	≤2.0

### LNA Specifications:

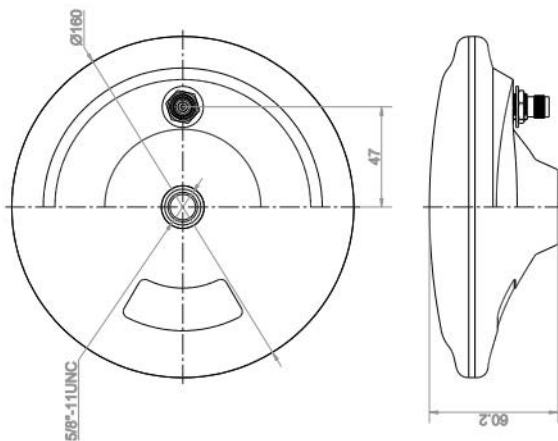
● Gain (dB)	40±2 dB
● Gain flatness (dB)	±2 dB
● Noise figure(dB)	≤2 dB
● Out(VSWR)	≤2.0
● Input (VSWR)	≤2.0

- DC Voltage [V] 3.3 – 16V
- DC Current [mA] ≤ 45mA

**Mechanical Specifications:**

- Dimension [mm] Ø160 × 60.2
- Connector TNC-C-K
- Operation temperature [°C] -40~+85
- Reposition temperature [°C] -55~+85
- Humidity 95% non-condensin

**Dimension:**



**Frequency Reference Table:**

Global/Compass Navigation Satellite Systems(GNSS/CNSS)	5					2					6/3			6			1													
Frequency (MHz)	1164	1176	1188	1192	1207	1215	1219	1227	1239	1245	1252	1259	1266	1268	1278	1290	1535	1540	1545	1550	1558	1561	1563	1575	1587	1592	1602	1609	1616	2491
GPS(USA) L1,L2,L2C,L5	L5+/-12					L2/L2C+/-12								L6+/-5			L1+/-12													
GLONASS(Russia) G1,G2						G2+/-7											G1+/-7													
Galileo(European) E1,E1E2,E5(E5a,E5b),E6	E5+/-15 E5a+/-12 E5b+/-12										E6+/-12			L6+/-5			E2		L1+/-17		E1									
Compass (Beidou 2,China)	B2+/-10										B3+/-10						B1+/-2													
Beidou 1 (China,Tx(LHCP)/Rx(RHCP))																						L	S							
IRNSS (India)	L5+/-15																		L1+/-12		S+/-15									
OmniStar														O+/-14--->																



**[WWW.GEMSNAV.COM](http://WWW.GEMSNAV.COM)**