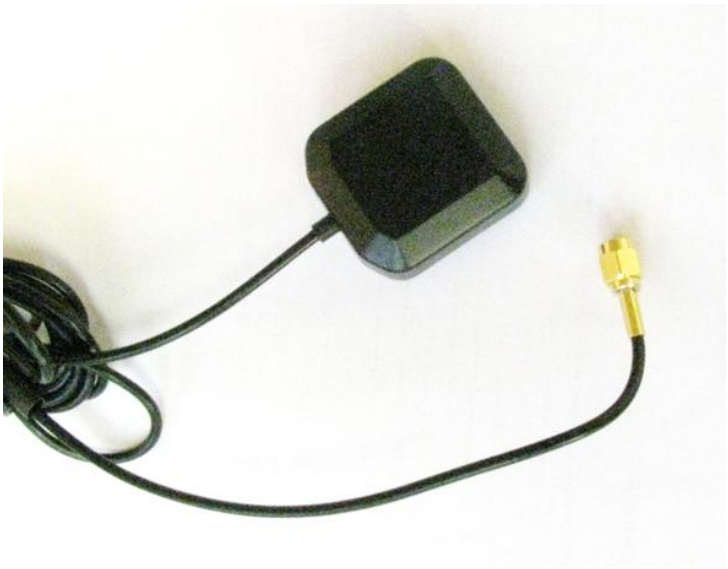
AN0048 External GNSS Antenna Technical Specification



Cellocator Division
Pointer Telocation Ltd.

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Version 1.0

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POINTER

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1 Introduction

1.1 Purpose and scope

This document provides the detailed technical specifications for the AN0048 External GNSS Antenna. It includes overview, highlights and specifications section.

The document is intended for product, marketing, support and sales teams of Cellocator partners, integrators and service provider customers.

1.2 Definitions, Acronyms and Abbreviations

Abbreviation	Description
GNSS	Global Navigation Satellite System
GLONASS	GLObal NAvigation Satellite System
GPS	Global Positioning System
SMA	SubMiniature version A

1.3 References

All the reference documents listed in the following table can be downloaded from the support section of the Pointer website (www.pointer.com).

#	Reference	Description
1.		
2.		

1.4 Revision History

Version	Date	Description
1.0	18/11/2014	Initial version

2 General description

2.1 Overview

The external GNSS antenna is an active antenna allowing the extension of the GNSS (GPS and GLONASS) antenna range from the Cellocator unit installation point. The AN0048 External GNSS antenna supports GPS and GLONASS frequencies and complies with the Cello and the Cello GNSS platform based products. The new External GNSS Antenna is fully compatible to the External GPS Antenna. The antenna supports a magnetic mount as well as a patch mount.

Note that in order to achieve improved RF performance, the external antennas should be attached to a metal surface.

The GNSS Platform based units are preprogrammed to use the internal antenna and activating the external antenna requires PL programming.

2.2 Highlights

Product highlights include the following:

- Support for GPS and GLONASS frequencies
- Support for Cello-based units (Cello-F) and Cello-GNSS based units (Cello-IQ and Cello-CANiQ)
- Supports both patch and magnetic mounts
- 3 meter cable length
- Connects to the unit via standard SMA connector

3 AN0048 External GNSS Antenna Technical Specification

The specifications in the table below are for outdoor installation purposes.

Power	
Input Voltage	Min: 2.7V Typ:3.0V Max: 5.5V
Current Consumption	Typ: 15mA Max: 25mA @ 3.0V
Power Consumption	Max: 138 mW
Environment	
Temp, operating	- 40°C to + 85°C
Temp, storage	- 40°C to + 85°C
Humidity	40% to 95%
IP Rating	IP 67
Cable and Connector	
Cable type	RF Coaxial Cable
Diameter	Max: 2.9 mm
RF Cable Length	3M +/- 5 cm
RF Connector	SMA Male 180°
Antenna Attributes	
Antenna Dimensions (L x W x H)	Max: 41mm x 39mm x 14.5mm
Frequency Range	1572-1610 MHz
GAIN	23dB at 3V, 24dB at 5V
Polarization	RHCP
Noise Figure	2.0 dB Typ
Output Impedance	50Ω
Output VSWR	2.0 Max