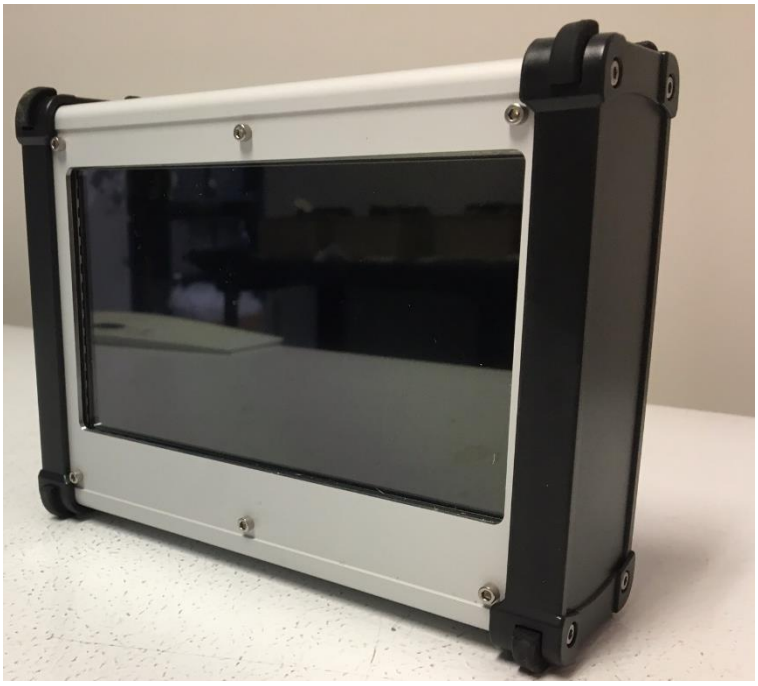
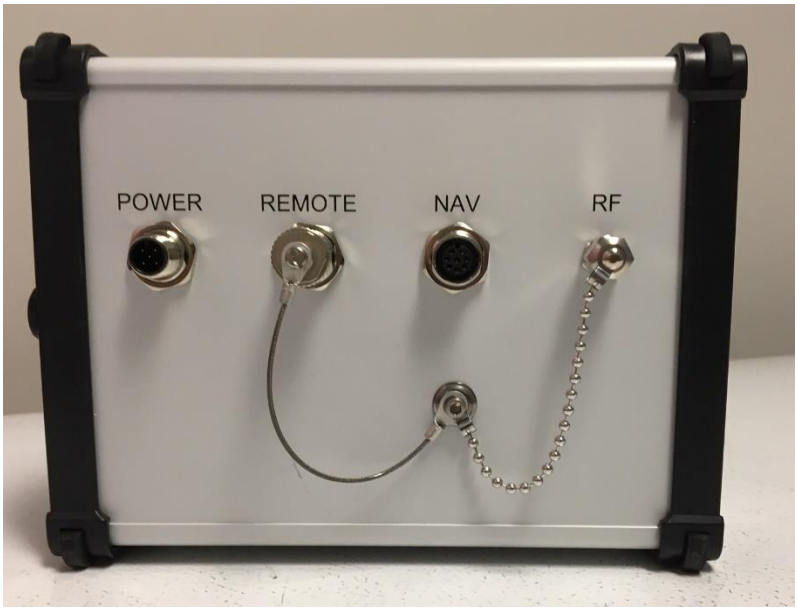
Appendix - RC350 Handheld Satellite Antenna Pointing Assistant

This appendix provides documentation for the RC350 Satellite Pointing Assistant. The RC350 is a handheld version of the RC300 Pointing Assistant with a built-in 7 inch touch panel LCD. The RC350 uses an external Compass/Inclinometer/GPS unit that interfaces to the RC350 via an M12 connector.

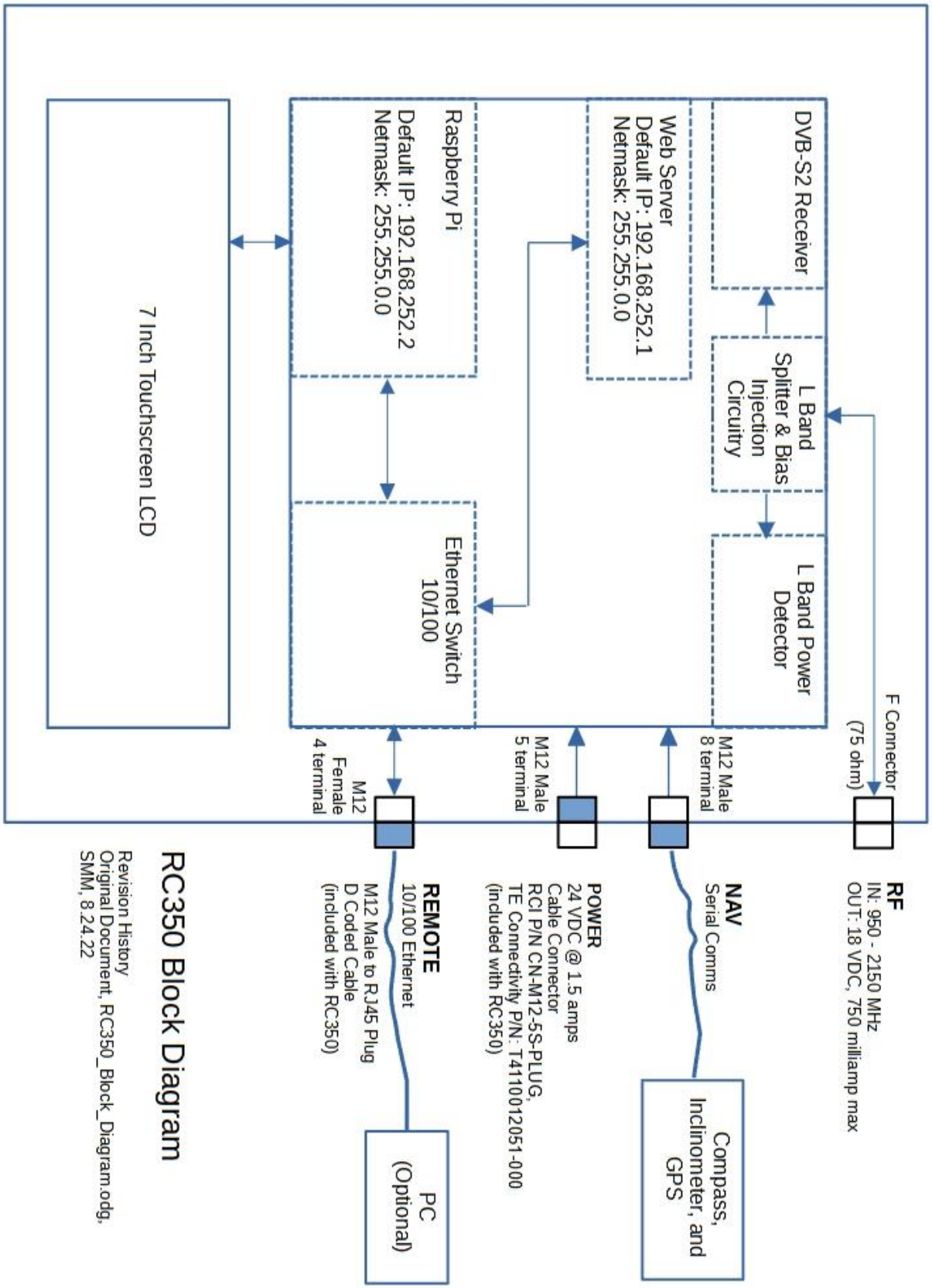
Refer to the RC300 Operator's Manual for setup and operating procedures.





RC350 Satellite Pointing Assistant

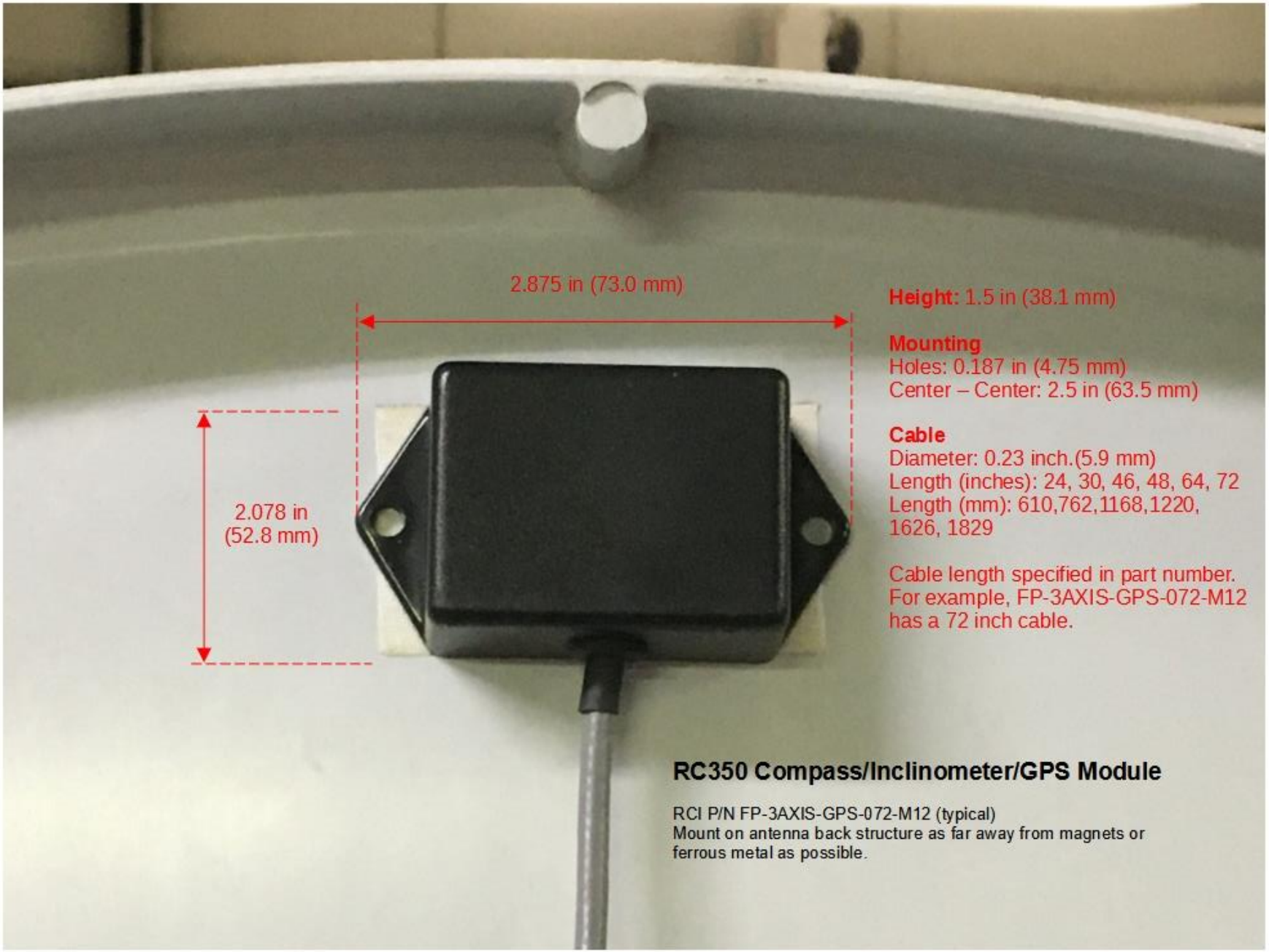
RC350 Block Diagram



RC350 Block Diagram

Revision History
Original Document, RC350_Block_Diagram.odg, SMM, 8.24.22

RC350 Compass/GPS Enclosure, RCI P/N FP-3AXIS-GPS-0xx-M12_2



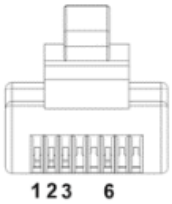
Differences between the RC300 and RC350

	RC300	RC350
Packaging	Mounted to antenna, supplied as a board set to OEM's.	Handheld Unit, IP 65 Dimensions: 6 x 8 x 3.125 inches 153 x 204 x 85 mm Weight: 2.2 pounds, 1 kg
User Interface	External Browser	Built In 7" LCD Touch panel or External Browser
Compass and Inclinometer	In RC300 Enclosure	Compass/Inclinometer/GPS in External Enclosure. RCI p/n FP-3AXIS-GPS-072-M12_2 (included with RC350)
GPS	Module on board, external antenna.	
IP Address Reset	Reset by shorting connector terminals.	Reset via SSH (contact factory for details)
Ethernet Interface	RJ45 Receptacle	M12 Female Connector for use with D coded M12 male to RJ45 plug cord set (included with RC350)
Power Input	24 VDC, connector type varies	M12 male connector, A coded. 24 VDC @ 1.5 amps maximum (a mating M12 female connector is included with RC350).

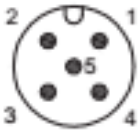
RC350 Connector Schedule

<table>
<tr><th>Description</th><th>RC350 Connector</th><th>Male Pinout</th><th>Female Pinout</th><th>Signals</th></tr>
<tr>
<td>REMOTE</td>
<td>Female M12, 4 Conductor Ethernet Interface

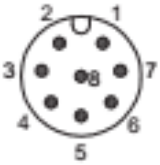
For use with D Coded M12 to RJ45 (plug) Cord set (included with RC350). The cordset is RCI P/N CBL-M12D-4-ETH-5M, Lumberg Automation P/N 0985 YM57530 103/5M.

Cable length 5 meters.</td>
<td>  </td>
<td>  </td>
<td>M12 — RJ 45 Plug
1 — 1
2 — 3
3 — 2
4 — 6
  </td>
</tr>
<tr>
<td>POWER</td>
<td>Male M12, 5 Conductor A Coding

Mating connector included, RCI P/N CN-M12-5S-PLUG, TE Connectivity P/N: T4110012051-000

Power Requirements:
+24 VDC, 1.5 amps max</td>
<td>  </td>
<td>  </td>
<td>Terminal — Signal
1,4 — Ground
2,3 — +24 VDC
5 — Shield</td>
</tr>
<tr>
<td>NAV</td>
<td>Female M12, 8 Conductor A Coding

Interface for Compass/Inclinometer and GPS serial communications.

The Compass/Inclinometer/GPS module is RCI P/N FP-3AXIS-GPS-xxx-M12 where ‘xxx’ denotes the cable length in inches. Available options are 024, 030, 046, 048, 064, and 072</td>
<td>  </td>
<td>  </td>
<td>Terminal — Signal
1 — +5 VDC
2 — Compass RS232 TX
3 — Compass RS232 RX
4,5 — Ground
6 — GPS TTL RX
7 — GPS TTL TX
8 — +3.3 VDC</td>
</tr>
<tr>
<td>RF</td>
<td>Female F Connector</td>
<td></td>
<td></td>
<td>Input: 950 – 2150 MHz, -65 to -25 dBm

Output: +18 VDC, 750 milliamp max</td>
</tr>
</table>

Revision History

09.06.22 – SMM – RC350_Appendix_090622.docx
Source Files:
RC350_Block_Diagram.odg – Block Diagram, Libre Office Draw vers 7.1.8.1 (x64)
FP-3AXIS-GPS-072-M12_2.odg – Compass/GPS photo with dims, Libre Office Draw