

Smart⁽ⁱ⁾Aligner

A Major Advancement in Antenna Alignment Systems

Live Antenna Alignment



Image courtesy of Fortune Wireless, Indianapolis, IN.

Foldable and Easily Transportable



Multiple Mounting Configurations

RIGHT SIDE OF ANTENNA
BACKWARD MOUNTING
LEFT POINTING ARMS



RIGHT SIDE OF ANTENNA
FORWARD MOUNTING
RIGHT POINTING ARMS



RIGHT SIDE OF ANTENNA
SIDE MOUNTING
FORWARD POINTING ARMS



Arrow represents antenna alignment direction.

The Smart Aligner can be mounted on either side of the antenna, in any arm position.

Irrespective of where the Smart Aligner is mounted or pointing, it always measures the antenna alignment direction.

Smartphone Enabled



Smart Aligner Features

- First foldable GPS Antenna Alignment Tool
- Universal Mounting Bracket - only one bracket required
- Multiple antenna mounting configurations for the most demanding spatial and RF conditions
- Tool and Bracket fit into Ruggedized Case
- Carry on baggage acceptable size
- Included Backpack to carry the Tool and Bracket – all included weighs 10 pounds
- GLONASS (Global Navigation Satellite System) enabled for increased performance
- Free smartphone *app*
- Pre-site setup using *app*:
 - » Azimuth and Tilt targets
 - » Sector/Position
 - » Antenna types
- Measure, Verify and Save data using *app*
- Create Report from *app*
 - » Include up to four photos in the report
 - » Email Report directly from *app*
 - » Database-ready data
- Import emailed Site data directly to *app*

Smart Aligner Specifications

Performance

Azimuth accuracy:	0.5°
Tilt and roll accuracy:	0.1°
Position accuracy:	60 cm with SBAS
Start up time:	< 30 seconds

Power

Internal battery:	Rechargeable lithium ion
Operation time:	7 hrs (over 80 alignments)
Battery charger:	AC wall charger and DC car charger

Physical

Smart Aligner Tool (patent pending)

Dimensions:	19" x 4.5" x 3" (48.3 cm x 11.4 cm x 7.6 cm)
Weight:	4 lb (1.8 kg)

Universal Mounting Bracket (patented)

Dimensions:	19" x 5" x 3" (48.3 cm x 12.7 cm x 7.6 cm)
Weight:	5 lb (2.3 kg)

Carrying Case (contains all components)

Dimensions:	21" x 16" x 8.5" (53.3 cm x 40.6 cm x 21.6 cm)
Weight:	12 lb (5.4 kg)

TOTAL WEIGHT 21 lb (9.5 kg)

Communication Ports

LED backlit display:	User interface and display
Wi-Fi:	Smart Aligner to user's mobile device
Connectivity:	Smartphone/Tablet – iOS or Android
Cable interface:	Serial RS-232

Reporting

Report formats:	JPEG (screenshot), PDF or CSV
Photos:	Embedded in PDF report

Photos can also be used as a backup, by taking a picture of the User Display.

Environmental

Operational temp:	-22° F to +158° F (-30° C to + 70° C)
Sealing:	NEMA 4X, IP67
Shock/vibration:	IEC 68-2-27 / IEC 68-2-6
EMI:	FCC Part 15 Subpart B: 2008 and ICES-003:2004



Mounting Configurations to Antenna

Multiple offset positions from bracket: forward, side, backwards on left or right side of antenna

Multiple arm positions: user can orientate the arms according to physical limitations

Offset and arm position tracking: sensors track tool configuration and adjust the azimuth and tilt relative to antenna

Number of mounting configurations: 18

Modes of Use (Smart Aligner App)

Quick measure: real time display of antenna orientation information with option to save a screenshot of the data

Site survey: set up of site and antenna information

Align antenna: real time display of antenna orientation information with option to verify the alignment

Verify: verify the alignment - ability to "Save" the alignment information after verification

Report mode: create PDF reports from verified alignments or historically saved sites - automatic attachment to email message

Import profiles: import CSV file with site and antenna information

Export profiles: export completed CSV file with appended measured alignment information - automatic attachment to email message