SPEC SHEET

Sunsight Alignment Tools

ENGINEERED TO DELIVER ACCURATE, RELIABLE RESULTS EVERY TIME

- Sunsight offers two primary antenna alignment tools designed to meet the needs of various deployments and use cases: the AAT Mini and the MW Single Unit.

KEY FEATURES

High precision measurements: Delivers precise readings for azimuth, tilt, roll, and height

Accuracy: Ensures antennas are aligned to exact specifications for improved signal quality and network performance

Efficiency: Reduces installation time with its quick capture feature, allowing technicians to complete tasks faster

Cost-effectiveness: Minimizes site revisits and re-climbs due to its high accuracy, resulting in cost savings

Durability: Rugged construction withstands harsh field conditions and ensures reliable performance

User-friendliness: Intuitive interface simplifies the alignment process for technicians of all skill levels

Versatility: Offers various mounting options to accommodate a wide range of antenna types and sizes

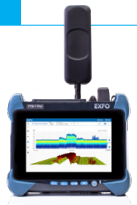
Comprehensive reporting: Generates detailed reports for analysis and record-keeping

Industry acceptance: Approved by major carriers in the US, demonstrating its proven track record

RELATED PRODUCTS

Optical fiber multimeter
Optical Explorer

Wireless inspection scope
FIP-435B



All in one 4G/5G test solution
FTB 5GPro

INTRODUCTION

Antenna and microwave (MW) path alignment stands out as a critical factor in deploying and maintaining high-performing 4G and 5G radio and access networks. Whether it's a new installation or routine maintenance, accurate alignment ensures networks operate at peak potential, delivering top-notch signal quality, minimal downtime, and an exceptional user experience.

INSTALLATION

MAINTENANCE AND AUDITS

PRODUCT OVERVIEW

Sunsight's AAT Mini and MW Single Unit provide accurate and efficient alignment of antennas used in 4G and 5G networks by delivering real-time measurements of azimuth, tilt, roll, and height.

FEATURE	AAT MINI	MW SINGLE UNIT
Primary use	RF antenna alignment	Microwave (MW) path alignment
Alignment type	Directional	End-to-end path alignment
Additional features	Line-of-sight photo reporting (camera-mount)	Line-of-sight photo reporting (camera-mount)

PRODUCT PACKAGING

PART NO.	DESCRIPTION
AAT Mini	For RF panel antenna alignment; includes AAT Mini unit, side mount, USB-C, cable, battery charger, and soft case
MW Single Unit	Directional (ex. cellular panel) and microwave path alignment (includes MW/AAT Unit, side mount, universal microwave mount, handheld device, smart level, USB-C cable, battery charger, and hard case)

BENEFITS OF ANTENNA ALIGNMENT

- Optimal signal coverage: Ensures signals are transmitted and received with maximum efficiency, eliminating dead zones and improving network reach.
- Enhanced network performance: Reduces interference, leading to faster data speeds, lower latency, and fewer dropped calls.
- Cost efficiency: Reduces maintenance costs and operational expenses by minimizing the need for repeated site visits.
- User satisfaction: Contributes to a better customer experience by providing clearer calls, faster data speeds, and reliable connectivity.
- Efficient resource utilization: Optimizes spectrum use, improving overall network capacity.

CHOOSE THE RIGHT TOOL FOR THE JOB

AAT MINI ANTENNA ALIGNMENT TOOL

Ideal for aligning panel antennas commonly used in cellular networks and other directional applications.

- Only alignment tool accepted by all U.S. carriers
- Free: ability to capture on-site photos embedded into reports
- Line-of-sight photo reporting with antenna view camera mount option
- Faster GPS/GNSS acquisition times using the latest GNSS positioning technologies rugged and durable: RF shielded, weather-resistant aluminum housing
- Email reports directly from the job site
- Operate using any WiFi enabled device – no fragile on-board screen or lens
- Additional USB-C cable interface allows AAT use in RF interference environments
- 3-year warranty standard
- No annual maintenance or calibration requirement

TECHNICAL SPECIFICATIONS

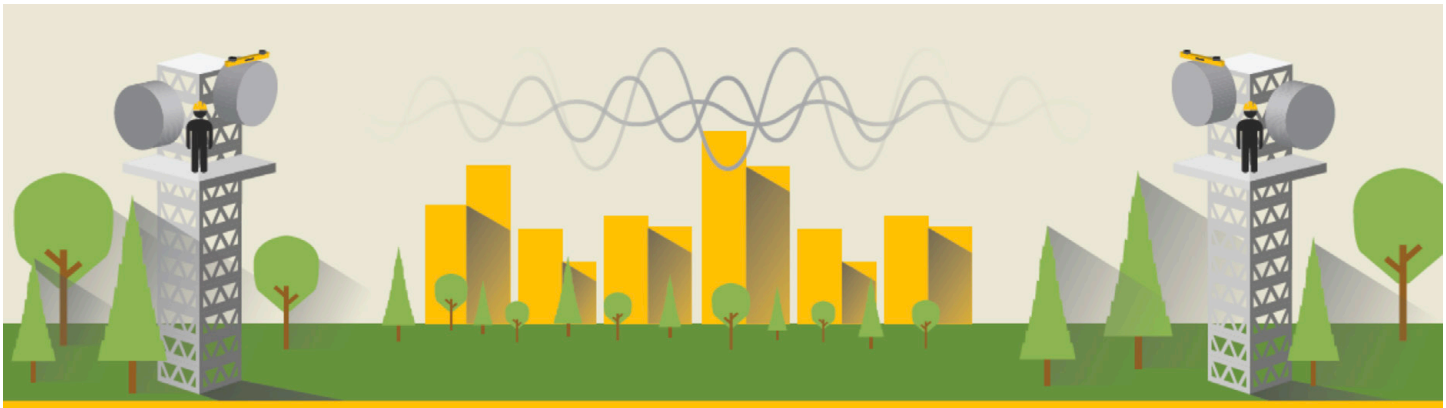
AAT MINI ANTENNA ALIGNMENT TOOL	
Azimuth (heading)	**Accuracy (degrees)**
RMS	± 0.3
R95	± 0.6
R99	± 1
GPS receiver channels	1408
Satallite constellations	GPS L1C/A/L2P (Y)/L2C BDS B1I/B2I/B3I, GLONASS G1/G2, Galileo E1/E5a/E5b, QZSS L1/L2
Tilt and roll range	± 22.5 degrees
Tilt and roll accuracy	0.1 degree [a]
Horizontal accuracy (ft)	<1
Vertical accuracy – MSL (ft)	<3
Unit dimensions	
Weight	1.72 kg (3.8 lb)
Dimension	31 mm x 76 mm x 66 mm (17 in x 3 in x 2.6 in)
Battery	
Type	LiFePO4
Life	10 hours
Charge time	80 minutes
Environment and connectivity	
Temperature Operating Storage	–30 °C to 60 °C (–22 °F to 140 °F) –30 °C to 60 °C (–22 °F to 140 °F)
Humidity	–95%
Communications	WiFi, USB-C
Output	PDF, CSV, Google Earth (KML)
Environmental	IP65

a. 0.1 degree accuracy from 0 to ± 22.5 degrees.

SUNSIGHT MICROWAVE PATH ALIGNMENT KIT

MW Single Unit and **MW Kit** are ideal for aligning microwave antennas used in point-to-point communication links, where precise end-to-end path alignment is critical.

- Kit determines the required path alignment automatically, eliminating potential errors
- Frequency and distance independent, link can be aligned with or without radios installed or powered
- Two alignment units allow for simultaneous alignment of both sides of a link in minutes
- Additional USB-C cable interface allows MW use in RF interference environments
- Can also be used to align one end of the link at a time, eliminating the need for multiple crews
- Each unit can operate as a directional (ex. cellular panel antenna) alignment tool
- A new easy-to-use icon-based interface minimizes learning curves and language barriers
- 3-year warranty standard
- No annual maintenance or calibration requirement



The system automatically calculates exact alignment using known positional data in real-time and provides the user simple targets for aligning the link. No signal, power, or frequency is needed for Sunsight's innovative pathing process.

TECHNICAL SPECIFICATIONS

SUNSIGHT MICROWAVE PATH ALIGNMENT KIT		
Azimuth		**Accuracy**
RMS		± 0.15
R95		± 0.3
R99		± 0.5 degree
GPS receiver channels		1408
Satallite constellations		GPS L1C/A/L2P (Y)/L2C BDS B1I/B2I/B3I, GLONASS G1/G2, Galileo E1/E5a/E5b, QZSS L1/L2
Tilt and roll range		± 22.5 degrees
Tilt and roll accuracy		0.1 degree [a]
Horizontal accuracy (ft)		1
Vertical accuracy – MSL (ft)		3
Unit dimension		
Weight		2.04 kg (4.5 lb)
Dimension		660 mm x 76 mm x 66 mm (26 in x 3 in x 2.6 in)
Battery		
Type		LiFePO4
Life		10 hours
Charge time		80 minutes
Environment and connectivity		
Temperature	Operating Storage	–30 °C to 60 °C (–22 °F to 140 °F) –30 °C to 60 °C (–22 °F to 140 °F)
Humidity		–95%
Communications		WiFi, USB-C
Output		PDF, CSV, Google Earth (KML)
Environmental		IP65

a. 0.1 degree accuracy from 0 to ±10 degrees, 0.2 degrees from ±10.1 to ±A1022.5 degrees.

SPECIFICATIONS	
Measurement range	Azimuth: 0° to 360°; Tilt: -10° to +90°; Roll: ±180°
Accuracy	Azimuth: ±0.1°; Tilt: ±0.1°; Roll: ±0.1°
Height measurement	±2 cm (MSL); ±1 cm (AGL)
Operating temperature	–20 °C to 50 °C (–4 °F to 122 °F)
Storage temperature	–40 °C to 70 °C (–40°F to 158°F)
Ingress protection	IP67 (dust-tight and waterproof)
Connectivity	Bluetooth, USB
Power	Rechargeable battery
Compatibility	Wide range of antenna types and sizes

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