

# SmartLink300

## DMR Airborne Ad Hoc Base Station



The SmartLink300 Airborne Ad Hoc Base Station adopts a decentralized, self-organizing, multi-hop architecture. It supports communication services including voice, SMS, and positioning. Designed as a communication payload for drones, the device features a compact size, airborne compatibility, rich functions, high integration, and strong reliability. It provides an airborne high-altitude coverage solution for mission-critical on-site voice communication networks.

- Professional Design & Flexible Installation
- Standard Protocols & Strong Compatibility
- USB Type-C Port for Easy Configuration
- Large Battery & Long Endurance

# Specifications

General	
Protocol	DMR
Frequency Range	UHF3: 350-400MHz
Channel Spacing	12.5kHz
Size (H×W×D)	143×67×40mm
Weight	450g (with battery and antenna)
Ad Hoc Network Maximum Nodes	32 nodes
Power Supply	Built-in battery External Type-C charging External 9-24V DC power supply (separate module, alternative with battery)
Charging	Whole-device charging Independent battery charging
Battery Capacity	4000mAh
Standby Current	< 0.65A
Transmission Current	5W Tx Power < 2.5A
Location	GPS
Display	2.4-inch 320×240 Transflective screen
Keypad	Equipped with onboard function keys
Audio Accessory	Supports external hand mic
Vocoder	NVOC or AMBE++

Transmitter	
Frequency Stability	±0.5ppm
Power Output	1W - 5W (Continuously adjustable)
4FSK Digital Modulation	12.5KHz Voice Only: 7K60FXE 12.5KHz Data Only: 7K60FXD 12.5KHz Voice And Data: 7K60FXW
Conducted/Radiated Emission	-36dBm ≤1GHz ; -30dBm >1GHz
Modulation Limiting	±2.5KHz @12.5KHz
Adjacent Channel Power	-60dB@12.5KHz
Hum and Noise	-40dB@12.5kHz
Audio Response	+1 ~ -3dB(TIA603D)
Audio Distortion	≤3% (Typical value)

Receiver	
Frequency Stability	±0.5ppm
Sensitive(Digital)	-121dBm (5% BER)
Intermodulation	70 dB (TIA603D) 65 dB (ETSI)
Adjacent Channel Selectively	60dB@12.5 kHz (TIA603A) 60dB@12.5 kHz (ETSI)
Spurious Rejection	70dB (TIA603D) 70 dB (ETSI)
Blocking or Desensitization	97dB (TIA603D) 94dB (ETSI)
Hum and Noise	-40 dB@12.5KHz
Conducted Spurious Emission	-57 dBm (TIA603D)
Audio Response	+1 ~ -3dB (TIA603D)
Rated Audio Distortion	≤3%

GPS	
Accuracy specs are for long-term tracking (95th percentile values>5satellites visible at nominal -130 dBm signal strength)	
TTF (Time To First Fix) -Cold Start	<60s
TTF(Time To First Fix) -Hot Start	<10s
Horizontal Accuracy	<10m

Environmental	
Operating Temperature	-30°C ~ +60°C
Storage Temperature	-40°C ~ +85°C
Dust and Water Resistance	IP67
Reliability	MIL-STD-810 G
Seismic Strengthening	GBT 4798.7-2007 (Part 7: Portable & Non stationary use, Above grade 7M2)

General Disclaimer:  
The specifications in this document are in accordance with the applicable standard test. Due to the continuous technology development, Caltta may change the specifications without notice.



Address: 12F/Building G2, International E-City, Nanshan, Shenzhen, China

Web: <https://en.caltta.com/> E-mail: [sales@caltta.com](mailto:sales@caltta.com) Post: 518052



**Privacy Statement:** Caltta Technologies is a leading provider of comprehensive critical communication solutions and committed to protecting personal data in accordance with applicable laws and regulations and with technologies including anonymization and data encryption and necessary security management measures.