Starwin OTM30 Airborne Terminal Datasheet -Fixed wing

Terminal Photo

Introduction:

Starwin OTM30 Ku band Airborne (Fixed-wing) terminal adopts high efficiency Tx/Rx coplanar flat array antenna technology, high gain and low profile, and integrated the advanced high precision tracking mechanism, applicable to all types of aircraft. It can maintain accurate and automatic tracking of satellites when carriers move and establish a continuous and reliable satellite communication connection.

Starwin OTM30 terminal supports two-way satellite communication services such as voice, video and data transmission under various flight conditions. And the uplink rate of 64Kbps-5Mbps, and downlink rate of 64Kbps-10Mbps.

Key Features:

- Strong environmental adaptability: Wide temperature design work temperature), suitable for use in various complex environments;
- Stable multi-level feedback technology: Adopt the number of industry-leading technologies such as high-precision fusion attitude measurement, carrier attitude calculation and compensation algorithm to ensure that the antenna automatically, accurately and reliably aligns with the satellite.
- The three-level feedback stabilization and combined tracking technology of GPS

(Beidou)/Inertial navigation/satellite beacon signal is adopted to achieve stable signal tracking (tracking error ≤0.3˚ without occlusion).

- Intuitive and easy-to-use control experience: The operation interface takes the user experience as the starting point, automatically completes the satellite search and signal tracking. The system parameters can be set through APP or ACU, and the operation is simple and fast.

Specifications:

OTM30 Airborne (Fixed-wing) Terminal					
Overall Specifications of Terminal					
Model		OTM30	**Type**		Flat Panel Horn Array Antenna
Working Frequency	**Tx**	13.75 ~ 14.5 GHz	**Antenna Gain**	**Tx**	≥30.5 dBi @14.50 GHz
	Rx	10.7 ~ 12.75 GHz		**Rx**	≥29.5 dBi @12.75 GHz
EIRP		≥ 44.5dBW@ 25W BUC (Exclude radome)	**GNSS**		Built In GPS+Beidou
Polarization		LP/CP (Can be changed by software)			
Rx LO.		9.75/10.6 GHz (Automatic switching)	**Colour**		White (Can be customized with an order exceeds 500 units)
Tx LO.		12.8/13.05 GHz (Automatic switching)			
IF Specifications					
Input Power (Modem Output)			-35 ~ 0dBm		
IF Input (Modem Output)			0.95 GHz ~ 1.7 GHz		
IF Output (Modem Input)			0.95 GHz ~ 2.15 GHz		
Internal Modem		Select small-size Modems according to customer requirements, such as IQ200, UHP210/220, etc.	**External Modem**		Customized
Tracking Specifications					
Tracking Mode		Combining inertial measurement with signal tracking	**Tracking Rate**	**Az**	≥60º/s
Tracking Receive Type		Integrated tracking system, DVB-S2, DVB-S2X		**El**	≥60º/s
Capture Time of First Boot		<120s			
Repeat Boot		<30s	**Max Angular Acceleration**	**Az**	200º/s²
Recapture Time After loss		Instantaneous capture (Less than 2S)		**El**	200º/s²
Tracking Accuracy		≤ 0.3°	**Stable Mode of Base**		Stability of two axes

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Mechanical Specifications				
Rotation Range	Az	N×360°Unlimited, continuous		
	El	0~90°		
	Pol	0~270° (The polarization is controlled by software)		
Interface				
Power Interface		Waterproof Quick Plug		
Physical Dimensions and Electrical Specifications				
Radome Height		320 mm	Radome Dimension	Φ400 mm
Weight		11Kg	Power Input	DC24 V±5%
Power Consumption		≤ 50 W, exclude BUC and Modem		
Environmental Specifications				
Operating Temperature		-40°C~+70°C	Altitude	6000m

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