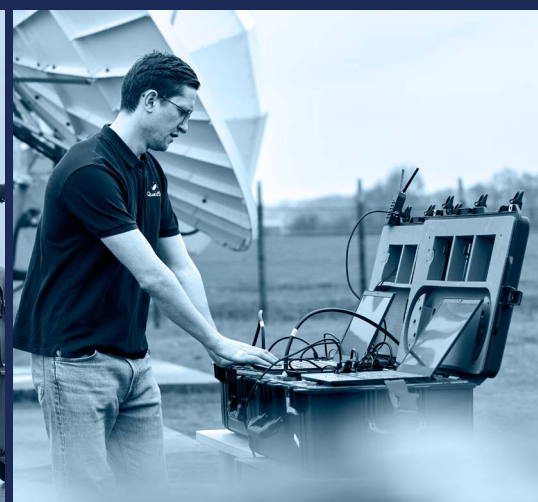




Quadsat Series System Specifications



Quadsat Series System Specification

UAV and System Level

SYSTEM FEATURES

UAV OPERATIONAL TIME	Up to 30 min. mission duration per battery/continuous operation (three batteries included)
STABILISED PAYLOAD	Counteracting drone motion and maintaining beam pointing stability
WEATHER CONDITIONS	Withstands light rain and wind speeds up to 15 m/s (33.5 mph)
OPERATING TEMPERATURE	-10°C to 40°C (14°F to 104°F)
FLIGHT PLANNING AND EXECUTION	Automatic flight planning and execution. Pilot intervention only needed in case of irregularity
DATA GATHERING AND POSTPROCESSING	Automatic file generation
DATA STORAGE	Cloud database for data storage, report generation and asset management

PAYLOAD FEATURES

PAYLOAD COMPARISON	CW DL PAYLOADS			SDR DL/UL PAYLOADS		
	QS 1-18 DL	QS 6-24 DL	QS 17-31 DL	QS 2-18 DL/UL	QS 6-24 DL/UL	QS 17-31 DL/UL
FREQUENCY RANGE	1-18 GHz (S-KU band)	6-24 GHz (X-Ka low band)	17-31 (Ka band)	2-18 GHz (S-KU band)	6-24 GHz (X-Ka low band)	17-31 GHz (Ka band)
FEED SYSTEM	Single circular polarized horn	Linear dual-polarized quadridged horn	Circular dual-polarized horn	Dual circular polarized horn	Linear dual-polarized quadridged horn	Circular dual-polarized horn
POLARIZATION	LHCP or RHCP	Full 360 degree feed rotation. VP, HP	LHCP, RHCP	LHCP, RHCP	Full 360 degree feed rotation. VP, HP	LHCP, RHCP
CROSS POLAR DISCRIMINATION	25-30 dB (2-18 GHz)	25-30 dB typical	25-35 dB	20-25 dB	25-30 dB	25- 35 dB
TRANSMIT POWER	EIRP -35 dBm to +15 dBm. Adjustable in 0,1 dB step.	EIRP -30 dBm to +20 dBm. Adjustable in 0,1 dB step.	EIRP -40 dBm to +10 dBm. Adjustable in 0,1 dB step.	EIRP -80 dBm to +5 dBm. Adjustable in 0,1 dB step.	EIRP -75 dBm to +10 dBm. Adjustable in 0,1 dB step.	EIRP -75 dBm to +10 dBm. Adjustable in 0,1 dB step.
RECEIVING POWER				EIRP +5 dBm to -105 dBm. Adjustable in 0,1 dB step.	EIRP +10 dBm to -100 dBm. Adjustable in 0,1 dB step.	EIRP +10 dBm to -100 dBm. Adjustable in 0,1 dB step.
DOWNLINK	✓	✓	✓	✓	✓	✓
UPLINK				✓	✓	✓
CONTINUOUS WAVE SIGNAL GENERATION	✓	✓	✓	✓	✓	✓
MODULATED SIGNAL GENERATION				✓	✓	✓

MEASUREMENT CAPABILITIES - Available Through Subscription

PAYLOAD COMPARISON	CW DL PAYLOADS			SDR DL/UL PAYLOADS		
	QS 1-18 DL	QS 6-24 DL	QS 17-31 DL	QS 2-18 DL/UL	QS 6-24 DL/UL	QS 17-31 DL/UL
1D SINGLE PLANE PATTERN CUTS (Azimuth, elevation, diagonal)	✓	✓	✓	✓	✓	✓
2D/3D RADIATION PATTERNS	✓	✓	✓	✓	✓	✓
UPLINK RADIATION PATTERN				✓	✓	✓
POLARIZATION MEASUREMENT	✓	✓	✓	✓	✓	✓
EIRP & G/T MEASUREMENT	✓	✓	✓	✓	✓	✓
STATIONARY POINT TRACKING	✓	✓	✓	✓	✓	✓
NGSO SATELLITE TRACKING EMULATION	✓	✓	✓	✓	✓	✓
DATA LINK VERIFICATION & WAVEFORM VALIDATION				✓	✓	✓
HANDOVER / MULTIBEAM EMULATION				✓	✓	✓