

SATCOM System

R4 Integration, Inc. has teamed up with industry leaders THALES, GetSat, and XP Services to design a revolutionary MILLISAT-H LW SATCOM system for H-60/S-70 helicopters.

Recent flight tests have successfully demonstrated resilient and secure "Beyond Line of Sight" (BLOS) through-rotor communication.

This innovative Roll-On/Roll-Off system features a specially designed replacement panel to accommodate various antenna combinations. It can support any mission, including military, border security, ISR, law enforcement and disaster response.

MILLISAT-H LW Antenna Specs

RF Performance	Ka Band	Ku Band
Tx Frequency	29-31 OR 27.5-30 GHz	12.75-13.25 OR 13.75-14.5 GHz
Rx Frequency	19.2-21.2 OR 17.5-20 GHz	10.75-12.75 OR 10.75-11.75 GHz
Max G/T	11.2 dB / K	7.2 dB / K
Polarization	RHCP/LHCP (co-pol / cross-pol)	Linear (V/H) Automatic Skew Control
EIRP	49 dBW (25W BUC)	45.7 dBW (50W BUC)
Panel Size	25 x 27 cm (9.8 x 10.6")	25 x 27 cm (9.8 x 10.6")
Azimuth	Continues coverage over full 360°	Continues coverage over full 360°
Elevation	-8° to 90°	-8° to 90°
Control Technique	Combined IMU / RSSI / GPS (Optional)	Combined IMU / RSSI / GPS (Optional)
Velocity	Azimuth >200° / Sec, Elevation > 200° / Sec	Azimuth >200° / Sec, Elevation > 200° / Sec
Initial Acquisition Time	<30 sec	<30 sec
Re-Acquisition time	<100ms	<100ms
Management	Web Interface/ Open AMIP 1.16/ SW ICD	Web Interface/ Open AMIP 1.16/ SW ICD
Power Input	24-36v DC	24-36v DC
Power Consumption	25w (Rx), 200W (25W BUC, pSAT)	25w (Rx), 250W (50W BUC, pSAT)
Interfaces	RS-232, Ethernet, TX / RX	RS-232, Ethernet, TX / RX
Weight	9.8 Kg (21 lb)	10.2 Kg (22.4 lb)
System Size	33 x 37 cm (13 x 14.5")	33 x 37 cm (13 x 14.5")



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THALES Modem 21 Air Compact

Power <65W @ 28 VDC
Operating Temperature -55 to 60° C
Storage Temperature -55° to 85° C
Dimensions 10.7" x 3.33" x 14.4"
Weight <15 lbs

System Includes

- MILLISAT-H LW Antenna w/ Radome
- THALES Modem 21 Air Compact
- Replacement Access Panel w/ all necessary hardware
- * Patent Pending # US App 18/889,557

