



Flight-Proven Satellite Communications

TC&R/TT&C for Commercial/Government Missions
Information Assurance/ COMSEC
Satellite Command & Control

Providing High-Reliability Flight-Proven Satellite Communications

COMMERCIAL TC&R/TT&C



CTKU-900/CRKU-900 - KU-BAND TRANSMITTER/RECEIVER

- PM transmitter/ FM receiver for commercial TC&R/TT&C applications
- Frequency agile in flight (<1 kHz resolution) (both)
- Frequency tuning across 500 MHz band for transmitter (200 MHz band for receiver)
- Supports video downlinks >1 MHz bandwidth for all ranging channels (Transmitter)
- Commandable or factory-set data rates, 22.5-year mission life



CRKA-900 - KA-BAND COMMAND RECEIVER

- FM receiver for commercial TC&R/TT&C telemetry applications
- Frequency agile in flight (< 1 kHz resolution)
- Frequency tuning across entire Ka-band receiver range
- Commandable or factory set data rates
- High-reliability, radiation-hardened, 22.5-year mission life

GOVERNMENT TC&R/TT&C



CXS-610 - STDN/USB/DSN TRANSPONDER

- BPSK/PM downlink
- Utilizes multi-function ASIC for improved performance
- Flight-proven, High-reliability, radiation-hardened
- 15-year mission life, Diplexer (optional)



CXS-810C (KI-57) - SECURE SGLS TRANSPONDER

- NSA certified, embedded encryption/decryption (optional)
- Utilizes multi-function ASIC for improved performance
- Flight-proven, High-reliability, radiation-hardened
- 15-year mission life, Diplexer (optional)

NSA CERTIFIED



CXS-2000/C (KG-150) - DUAL-BAND, MULTI-MODE

- NSA certified, embedded encryption/decryption (optional)
- 1553 interface (optional)
- Multi-mode PM, FSK/AM, BPSK (QPSK optional)
- Flight-proven, High-reliability, radiation-hardened
- 15-year mission life, Triplexer (optional)

NSA CERTIFIED



MSX-765 - L-/S-BAND TRACKING & COMMAND

- BPSK command receiver uplink data rate 64 kbps, capable to 2 Mbps
- BPSK telemetry transmitter downlink data rate 2 Mbps, capable to 10 Mbps
- Flight-proven, High-reliability, radiation-hardened
- Standalone transmitter or receiver configurations, Diplexer (optional)





INFORMATION ASSURANCE/COMSEC



NSA CERTIFIED

CDU-100 - COMMAND DECRYPTION UNIT

- NSA certified Type 2 design
- Decrypt data rate 1 Mbps, 16 keys
- Supports both Caribou and Centurion algorithms
- Flight-proven
- High-reliability, radiation-hardened
- Redundant configuration - CDUA (optional)



NSA CERTIFIED

CDU-200 (KIR-200) - COMMAND DECRYPTION UNIT

- There are CDU-200/KIR-200 configurations to address CNSSP-12 and SECRET and BELOW (SAB) applications for foreign, allied and domestic use.
- 15-year mission life, 1 Mbps uplink
- Uplink command authentication
- Available in a single board embeddable solution



NSA CERTIFIED

MCU-110B - MINIATURE COMSEC UNIT

- Standalone integrated encryptor/decryptor
- Compact, lightweight
- NSA certified Type 1 design
- Decrypt data rate 5 Mbps
- Encrypt data rate 10 Mbps
- Flight-proven, High-reliability, radiation-hardened



NSA CERTIFIED

MEU-121 - MINIATURE ENCRYPTION UNIT

- Standalone Pegasus encryptor
- Compact, lightweight
- NSA certified Type 1 design
- Encrypt data rate from 51 Mbps to 80 Mbps, capable to 100 Mbps
- 64 keys
- Flight-proven, High-reliability, radiation-hardened



NSA CERTIFIED

MDU-133/135 - MINIATURE DECRYPTION UNIT

- Standalone Caribou decryptor
- Utilizes NSA certified Caribou device (CNSSP-12 Policy design)
- Dual uplink decryption
- Data rate 128 kbps, 16 keys
- Flight-proven, High-reliability, radiation-hardened
- Redundant/cross-strapped configurations optional (MDU-135)



NSA CERTIFIED

MCU-600 (CTP) - COMSEC/TRANSEC PROCESSOR

- Configurable encryptor/decryptor/TRANSEC
- Encrypt data rate 5 Mbps, capable to 100 Mbps
- Decrypt data rate 2 Mbps
- Internally-redundant, cross-strapped design
- Flight-proven
- High-reliability, radiation-hardened

SATELLITE COMMAND & CONTROL SOFTWARE



- Multi-mission fleet capable
- Multi-vendor support
- Scalable, Platform independent
- Ability to use same software application in satellite test and on-operations
- Fully customizable using XML
- Automation for risk and cost reduction
- Modern — designed, developed, and deployed in this century



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