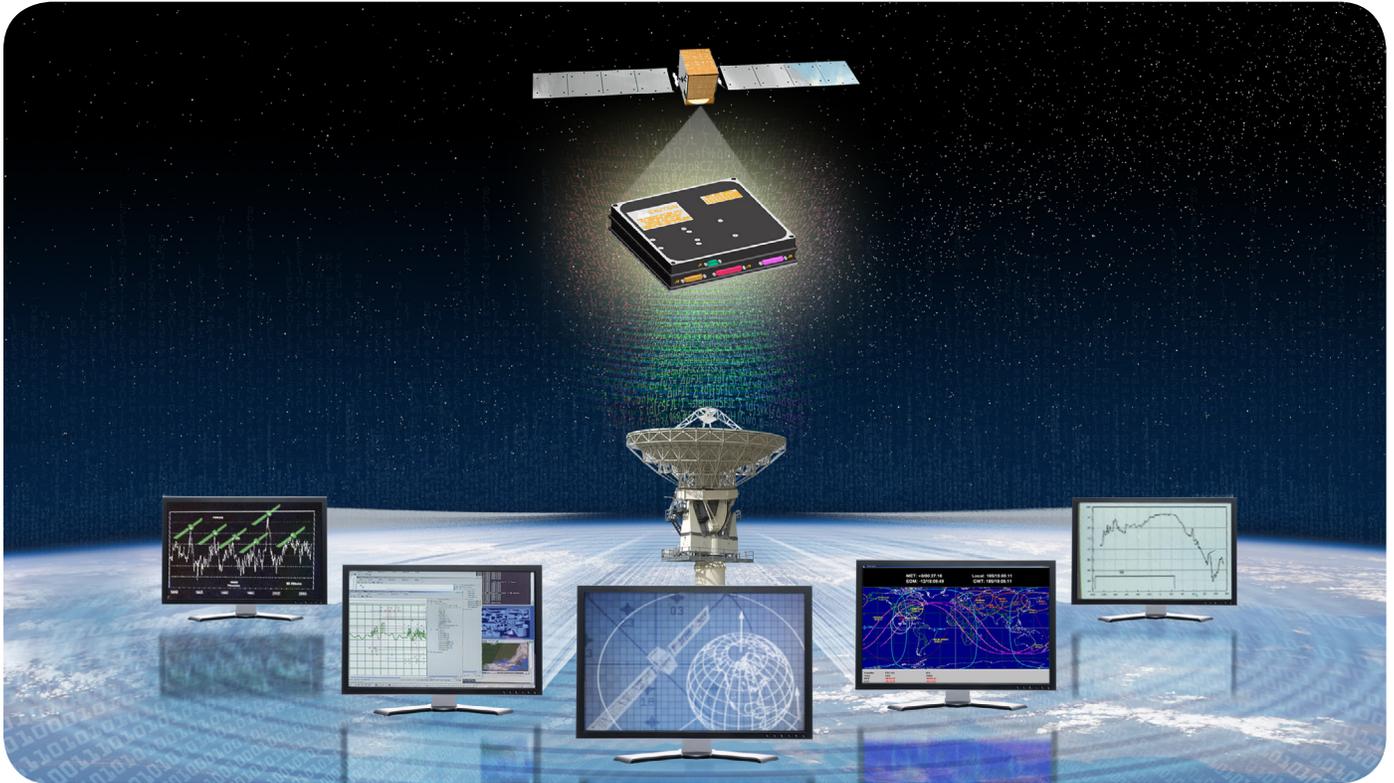


# KG-327, KG-327A and KG-328 Family of TT&C Encryptor/Decryptors

*Telemetry, Tracking and Command for All Satellites*



Next Generation NSA Type 1  
COMSEC for Space

NSA certified

Higher COMSEC data rates

Optimized SWaP

Advanced key management for space

One time programmable hardware  
for future customization

The KG-327 family is the next generation of Telemetry, Tracking and Command End Crypto Units (ECU) for spaceborne applications. The KG-327 family is NSA-certified to secure satellite uplink, downlink, and crosslink communications 10 times faster than legacy equipment to enhance performance. Design, component selection and rigorous testing are performed to optimize SWaP and enable long-term mission life.

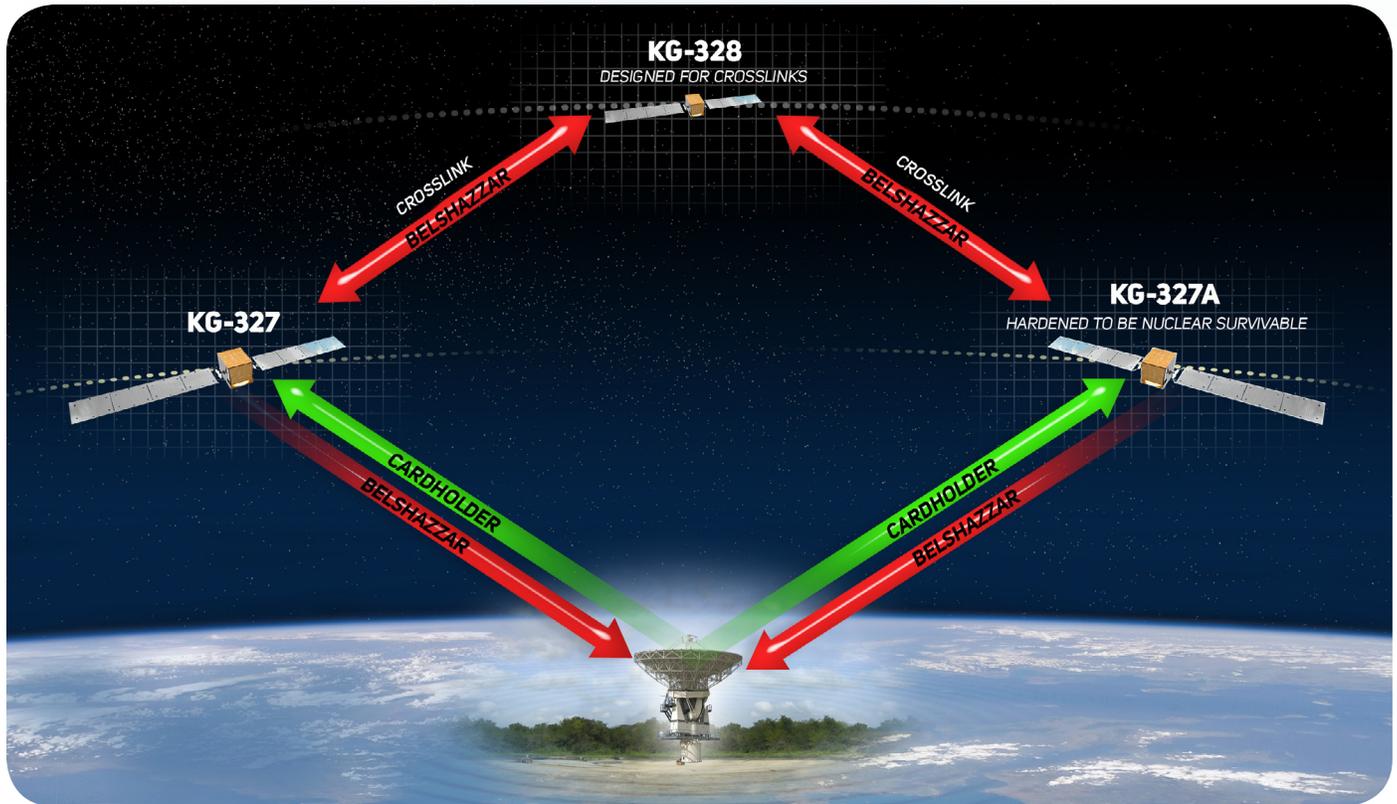
The KG-327 family's One Time Programmable technology allows for future alternate configurations without the need for hardware redesign. The pre-placed keys can be updated by the user via a DS-101 interface, allowing operational keys to be loaded prior to launch.



*KG-327 End Cryptographic Unit (ECU)*

Securing space communications has been General Dynamics Mission Systems' expertise for over 50 years, and the KG-327 family delivers next-generation TT&C performance.

# KG-327 TT&C Encryptor/Decryptor Family



	KG-327	KG-328	KG-327A
<b>Algorithms Supported</b>	BELSHAZZAR CARDHOLDER	BELSHAZZAR	BELSHAZZAR CARDHOLDER
<b>Encrypt Data Rates</b>	100 bps to 100 Mbps	100 bps to 100 Mbps	100 bps to 1 Mbps
<b>Decrypt Data Rates</b>	100 bps to 50 Mbps	100 bps to 100 Mbps	100 bps to 1 Mbps
<b>Size</b>	6.53 x 6.53 x 1.56 inches	6.53 x 6.53 x 1.56 inches	8.00 x 6.75 x 1.86 inches
<b>Volume</b>	66.5 in. <sup>3</sup>	66.5 in. <sup>3</sup>	100.4 in. <sup>3</sup>
<b>Weight</b>	2.8 lbs. (Aluminum housing)	2.8 lbs. (Aluminum housing)	9.4 lbs. (Tantalum cladding)
<b>Power</b>	5 Watts (both channels running)	5 Watts (both channels running)	5 Watts (both channels running)
<b>Radiation</b>	100Krads TID (outside housing)	100Krads TID (outside housing)	25Mrads TID (outside housing)
<b>Operating Temperature</b>	-24°C to +61°C		
<b>Vibration</b>	19 g rms		
<b>Input Voltage</b>	Nominal 28 Volts (22v – 50v)		
<b>EMI</b>	MIL-STD-461E (tailored)		
<b>Data Interface</b>	LVDS		
<b>MTTF</b>	>2,000,000 hours at 10°C and >1,000,000 hours at 40°C		

**GENERAL DYNAMICS**

Mission Systems

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