NanoCom Link X

SPEED **FLEXIBLE** **DEPENDABLE**

GomSpace's NanoCom Link X is a fast, flexible and efficient DVB-S2 compatible X-band transmitter designed to support data intensive payloads.

Based on the flight proven series of Software Defined Radios (SDR) with an integrated reconfigurable X band antenna, NanoCom Link X can provide raw transmit rates up to 225Mbps, making it ideal for supporting Remote Sensing, Earth Observation and SIGINT missions. NanoCom Link X's power, frequency and modulation/coding can be dynamically configured and controlled in orbit to ensure optimum data throughput as it approaches and passes a ground station.

Mission flexibility is enhanced by on-board Store and Forward capability with up to 200 GB of data storage available for transferring payload data by space-wire or RS-422 interfaces and TCP/IP protocols. CAN and CSP are provided for configuration and control. Support for flight scheduled data-transmission is provided which includes the ability to split large files for partial transfer or re-transfer.

DVB-S2 MODCODs (ETSI EN 302 307-1 V1.4.1) compliant, NanoCom Link X has also been verified with commercial off-the-self demodulators and is compatible with major commercial ground station service providers.
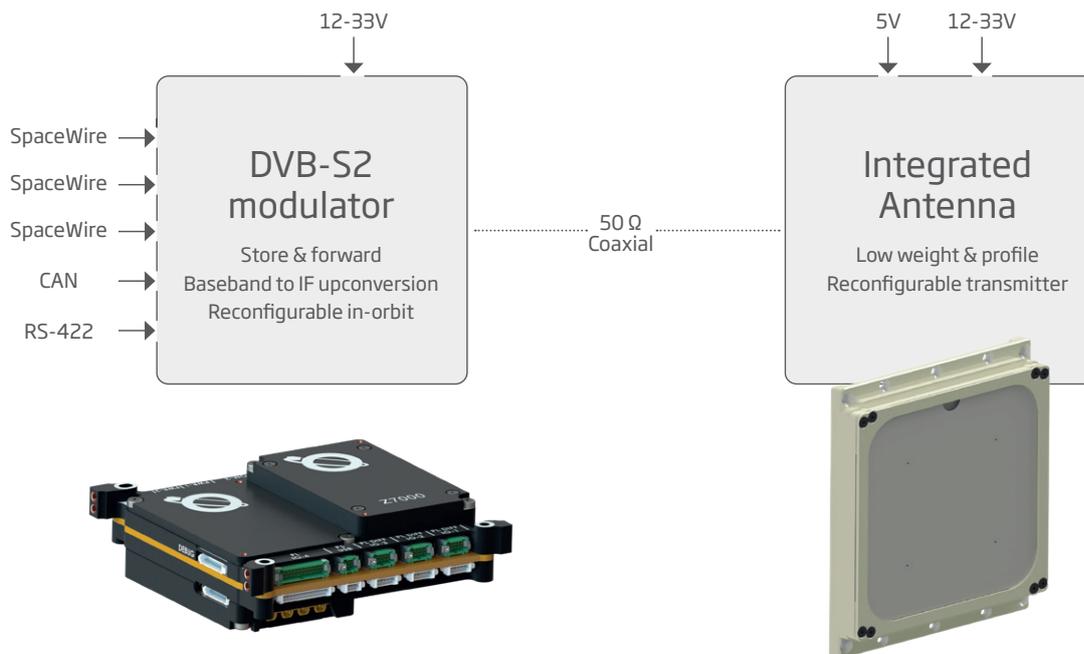
GomSpace's Link Connect Software for Ground Systems also supports NanoCom Link X. For orbits passing near NASA's Deep Space Network ground stations, an optional DSN filter kit is available if needed.

Technical Information

NANOCOM LINK X - KEY FEATURES:	
Communication / RF	• Configurable raw transmit rate up to 225Mb • DVB-S2 compliant • Configurable RF output power up to 2W
Antenna	• Frequency: 8000-8500 MHz • Bandwidth: 500 MHz • Polarisation: RHCP • Gain: >13 dB (peak), >10 dB (20° beam width)
Modulator	• Up to 200GB local downlink data buffer • 3xSpaceWire, CAN and RS-422 interfaces • Supported Input Protocols: CSP and TCP/IP
Size, weight and power	**Integrated Antenna:** • 1U panel for mounting on satellite surface • Mass: 145g • DC Power consumption 7-23W (depending on settings) **Modulator:** • 1 PC104 type board for internal mounting • Mass: 272g • DC Power consumption 4.5-8W (depending on mode)

12-33V

SpaceWire →
SpaceWire →
SpaceWire →
CAN →
RS-422 →

DVB-S2 modulator
Store & forward
Baseband to IF upconversion
Reconfigurable in-orbit

50 Ω
Coaxial

5V   12-33V

Integrated Antenna
Low weight & profile
Reconfigurable transmitter

SPEED

• High Speed DVBS-2 communications
• Data intensive Payloads
  - Remote Sensing
  - Earth Observation

VERSATILE

• Store and Forward
• In orbit configurable
  - Power
  - Frequency
  - Modulation and coding

DEPENDABLE

• Based on Flight Proven SDR
• DVB-S2 MODCODs
  (ETSI EN 302 307-1 V1.4.1) compliant
• Optional DSN Filter