NovelSat
Making Space in Space

Breaking barriers
in satellite efficiency

About NovelSat

Founded in 2007, NovelSat is a world leader in satellite communication technology. Its field-proven satellite communications platforms deliver unsurpassed spectral efficiency, transfer speeds and high-end features to businesses of all sizes who rely on satellite communications for data transmission and broadcasting. NovelSat solutions are deployed at thousands of sites in over 100 countries.

The NovelSat product portfolio includes satellite modems, modulators and demodulators. All support DVB-S, DVB-S2 and DVB-S2X* industry standards while offering further efficiency utilizing NovelSat NS3™ and NovelSat DUET™ CeC™ (Carrier Echo Cancellation) technologies. NovelSat technologies deliver the satellite industry's most compelling ROI and the most scalable transmission solutions from 64Kbps to 850Mbps on a single modem.

As NovelSat continues to grow, the company will maintain its technology leadership by developing future products and solutions including new waveform capabilities and advanced features to be embedded in new satellite communication products. NovelSat brings new value to the satellite communications industry by partnering with technology innovators.

NovelSat Technology

NovelSat products are designed around a high performance software-defined architecture. This architecture comprises NovelSat SMOS (Satellite Modem Operating System) and embedded waveforms. It offers a common advanced-capabilities feature set on all throughput-scalable product hardware platforms, each designed to deliver specific throughput and application requirements.

As a result, all NovelSat modems, modulators and demodulators are capable of offering unsurpassed efficiency, capacity, scalability plus a full feature set and are fully interoperable with one another as well as with other standard satellite equipment.

NovelSat Advantages

- Supports DVB-S/S2/S2X*, NovelSat NS3 and future satellite communication waveforms
- NovelSat NS3 transmission technology typically delivers 40% more efficiency than DVB-S2
- NovelSat DUET CeC – capacity boost of up to 100% for bidirectional modem traffic
- DVB-S2 with 5% Roll-off – 10% capacity boost to DVB-S2 while maintaining DVB-S2 backward compatibility
- Scalable solutions from 64Kbps to 850Mbps on a single unit
- Most cost-effective satellite technology at any capacity
- Superior resilience algorithms for jamming & interference
- NovelSat FreeBand – Free upstream satellite contribution over existing distribution bandwidth
- Highest efficiency at all data rates for fast ROI
- Flexibility - Scalable hardware platforms and upgrade paths

* Planned

NovelSat Professional Satellite Modem Series

All NovelSat products share a full set of unique features including support for DVB-S, DVB-S2/X standards and full interoperability with all other NovelSat products.

NovelSat NS3000 Professional High-Data Rate Satellite Modem

- 64Kbps to 2x425Mbps industry-leading data rate
- Highest performance and efficiency at all data rates
- The most complete feature set: ACM, AUPC, QOS, Packet Compression...
- Highest efficiency in the market: Up to 64APSK, NovelSat DUET CeC, DDC...
- Feature-rich IP processing enhancements
- Point-To-Point and Point-to-Multipoint link support

NovelSat NS300 Professional Satellite Modem

- 64Kbps to 2x30Mbps data rate
- Highest efficiency at lower data rates
- Same high-end features as NovelSat NS3000 modem
- Software-based NovelSat DUET CeC
- Feature-rich IP processing enhancements

NovelSat Satellite Modulators & Demodulators

NovelSat NS1000 Satellite Modulator
NovelSat NS2000 Satellite Demodulator

- Chosen to deliver the 4K Ultra HD live satellite broadcast of FIFA World Cup
- Up to 425Mbps data rate
- Superior resilience for jamming, interference, weather fluctuations and phase noise
- The most complete feature set: ACM, AUPC, DDC...
- Up to 64APSK modulation scheme support
- Dual channel – Combined Ethernet & ASI streaming
- Thousands of deployments worldwide

Waveforms	Efficiency Enhancements
DVB-S	NovelSat DUET CeC
DVB-S2	ACM
DVB-S2 with 5% ROF	AUPC
DVB-S2X	DDC
NovelSat NS3	
Modulations	**IP Processing Enhancements**
BPSK	Advanced QoS
QPSK	VLAN switching
8APSK	NSPE™ IP Encapsulation
16APSK	IP Transparent Bridging
32APSK	Header Compression
64APSK	

NovelSat
Making Space in Space

For more information about NovelSat and the most scalable, resilient high-efficiency satellite communication solutions, contact us.

NovelSat Headquarters:
3 Hayetzira, Ra'anana, 4336948, ISRAEL
+972.9.788.9818

NovelSat US:
5 Kings Way, Suite 11, Waltham, MA 02451
+1.781.790.1753

info@novelsat.com • www.novelsat.com