

ST1PRO

An IP over satellite transmitter with full support of DVB-S2, integrates both encapsulator and modulator, with optional NCR timing insertion. The ST1PRO supports advanced modulation modes of the DVBS2 up to 32APSK. The ST1PRO delivers more performance at lower cost and significantly reduces long-term operating costs. Leading the market with its price performance, the ST1 enables new business models and revenue sources.



Product Highlights

- Cost effective solution for IP over DVB-S2 transmission
- Full support of DVB-S2
 - GSE queue handling for VCM and ACM operation
 - MODCODs from QPSK to 32APSK
- Normal and short frames
- From 100Ksps to 60Msps
- 220Mbps throughput
- MPE and GSE methods
- AYECKA hardware accelerator provides extremely low jitter and latency
- Integrated GIGE Switch for easy integration with customer network
- Supports jumbo frames, pause frames and VLAN routing.
- Separate or combined management and traffic LAN interfaces
- Full L-band frequency range: 950 to 2150 MHz
- BUC powering – DC + 10MHz controllable

Applications

- Data broadcast and multicast over satellite
- DSNG contribution
- Radio over satellite broadcast
- HD surveillance video delivery over satellite
- Cellular and wireless local loop backhauling

Product Specifications

DVB-S2 Modulator

Standard	Fully compliant with ETSi EN 302 307
DVB-S2 Modes	CCM, VCM and ACM modes
Modulation	QPSK, 8PSK, 16APSK, 32APSK
Symbol rates	100Ksps to 60Msps
Throughput	Up to 220Mbps
Roll off factors	0.05,0.1,0.15,0.2,0.25,0.35
Coding	LDPC and BCH according to DVBS2
Code rates	1/4, 1/3, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
Framing	Short and Normal
DVBS2 Pilots	On / Off
Frequency range	950 – 2150 MHz
Signal level	0 to -40 dBm,
RF connector	Type F, 75Ohm / SMA 50 Ohms
Spurious level	<-55dBc/4KHz
Phase Noise	Better than IESS-316
Reference Clock	10MHz internal, stability ± 1ppm
External Clock	By configuration
Return loss	>10dB
TX power off	>50dB
Flatness	± 0.5dB over any 36MHz band ± 2dB over the full band

IP encapsulation

MPE	According to ETSI 301192
GSE	Based on ETSI TS 102 606 and 256 Entries
Encapsulation Table	

Traffic Interface

Interface	10/100/1000 BaseT L2/L3
Network	

Control & Monitor

Serial port	Serial over USB CLI Telnet and SNMP
IP	
Upgrade	SW and FW field upgradeable

Standards compliance

Safety	CE FCC part 15, Class A
EMI/EMC	
Upgrade	SW and FW field upgradeable

Physical Characteristics

Dimensions	Rack mount – 1U 19", 31cm deep
Power	110/220VAC, 50/60Hz 12W
BUC power	24V/6A
Weight	1.5Kg

Environmental Conditions

Operating temperature	0° to 50° C.
Storage Temperature	-25° to +85° C.
Humidity	5% to 95% non-condensing