

SATSTREAM 21551

DVB FORMAT MPEG BROADCAST
QUALITY AUDIO/DATA RECEIVER



FEATURES

- Moderate speed data and/or MPEG CD Quality Audio
- Selectable packet rate for required audio quality
- Software configuration via serial port or downlink
- Flexible data / audio bandwidth allocation
- Industry standard DVB MPEG transport stream
- Alarm output signals for loss of signal and other faults
- Selective addressing to units, groups, regions or all
- Full L band range 950 – 2150 MHz for C / Ku reception

DESCRIPTION

The SatStream 21551 features state of the art design for flexibility and reliability in a variety of satellite receiver roles. While designed primarily for efficient distribution of broadcast quality audio, it may also be used as a moderate speed data only receiver. It provides both high quality audio (at various selectable bandwidths and compression settings) as well as simultaneous low to moderate speed data. The user has considerable flexibility in allocation of the available bandwidth.

In broadcast audio applications, control outputs allow for automatic insertion of advertising or local programs. Switching between program sources or satellite channels can be scheduled externally or in the receiver.

The data channel may be used for global distribution or data packets may be directed to receivers selected by group, region, or individual serial number. Further, each receiver may be enabled to receive one or more of up to 8192 specific streams (such as news wires).

Relay contact outputs are available for cueing as well as loss-of-signal indication. A switchmode universal AC power supply is provided.

APPLICATIONS

- High quality audio distribution for networks
- Automated broadcast station control and cueing
- Low to moderate speed data for news feeds
- Corporate data distribution networks
- Selective distribution of news to enable clients
- Background music systems with local insertion
- Downlink of internet feed to remote locations
- Frequency agile test receiver

EMERGENCY ALERT- OPTION Z

The EAS option provides additional features that allow the receiver to act as a repeater for EAS notifications. All segments of the standard EAS broadcast are digitized and packetized at the uplink modulator.

Approximately 10000 bits per second of the data stream are dedicated to the EAS broadcast when it is enabled. At the receiver the incoming EAS packets are interpreted. Precision frequency Alert Tones and FSK data are locally synthesized in the receiver. EAS audio is inserted in the audio output stream in accordance with the timing captured at the uplink modulator. By regenerating all tones and voice messages locally, distortion and possible corruption of the data is minimized. A push to talk output is available to activate dispatch systems automatically. A loss-of-signal alert output is also provided. When not carrying an active EAS message, the available bandwidth may be used to transmit other data, text or graphics. For mission critical EAS applications, an SCPC direct satellite link is recommended since it can be implemented without reliance upon telcom networks or other terrestrial infrastructure that could fail in the event of disaster.

SatStream Systems Corporation 2- 2599 Cedar Park Place Abbotsford, BC V2T 3S4 Canada
TEL 604 859 5528 FAX 604 859 5529 e-mail sales@satstream.ca

U.S. Mailing Address: SatStream PO Box 1297 Sumas, WA 98295 USA

SATSTREAM 21551 SPECIFICATIONS

Input Frequency Range	950 – 2150 MHz 1 MHz LO tuning steps
Input sensitivity	-65 dbm to -25 dbm @ typical 28 Mbaud transponder
Input impedance	75 ohm – F59 style connector
LNB output voltage	+18 volts at up to 250 milliamperes
Modulation	QPSK – DVB Standard MPEG Transport Stream
Forward Error Correction	DVB Standard Viterbi (rates ½ ¾ and others) Reed Solomon (normally 204/188 or 146/130)
MPEG Data Rates	Standard rates from 32000 to 320000 bits/second
Data channel rates	Selectable rates from 9600 to 230400 bit/second
Total MPEG, Aux, Data rate	Maximum effective data rate is 400,000 bits per second
Audio Output (Option M)	Two channels balanced 600 ohm, digital level adjust 20 Hz – 20 KHz at higher data rates
Audio Dynamic Range	Greater than 85 db
Aux Audio Out (Option V or Z)	Single channel voice grade audio, unbalanced out
Control / Supervisory Serial Port	DB9 RS232 Configurable rates 2400-57600 bps
Auxiliary Serial Data Port	DB9 RS232 or RS485 Configurable rates 2400-230400 bps
Relay Output Port (Option K)	4 or 8 SPDT (Form C) isolated relay contacts (DB25)
Power requirements	90-260 VAC 48-63 Hz less than 30 VA
Environmental requirements	0 – 50 C, 5-95% relative humidity, maximum altitude 3500 meters
Dimensions	Standard rack mount: 1RU 19" Rack 19" wide x 1.75" high by 7.0" deep (48.26 x 4.45 x 17.8 cm) Option T: Desktop Version 10.5" wide x 1.85" high x 7.0" deep (26.7 x 4.7 x 17.8 cm)

DESCRIPTION OF OPTIONS FOR MODEL 21551*

E:	Ethernet LAN interface	Supervisory and control port
K:	Optional Relay Outputs	4 or 8 relay contact outputs (SPDT Form C)
M:	MPEG Audio Output	Monaural or stereo analog output
N:	Selective Addressing	Data channel selective addressing
P:	Telephone modem	Supervisory and control port including SMTP
R:	Remote programming	Remote or downlink programming control
S:	LCD Status Display	Display and keypad for local manual setup
T:	Desktop package	Desktop instead of normal rack mount configuration
V:	Voice grade audio	An additional compressed voice grade channel
Z:	EAS Repeater	Provides local EAS audio output channel

*See Application Note AN210 for Details

