

# SATSTREAM 21501

## MPEG AUDIO/DATA SATELLITE RECEIVER



### FEATURES

- Moderate speed data and/or MPEG CD Quality Audio
- Versions are available for SCPC and FM Subcarrier
- Software configuration via local serial port or downlink
- Flexible bandwidth allocation between audio and data
- QPSK demodulation with Viterbi error correction
- Alarm output signals for loss of signal and other faults
- Selective addressing to units, groups, regions or all

### DESCRIPTION

The SatStream 21501 has been designed for flexibility in a variety of satellite receiver roles. It provides both high quality audio (at selectable bandwidths and compression settings) as well as moderate speed data. The user has considerable flexibility in allocation of available bandwidth.

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

The data channel may be used for global (all receiver) distribution or data packets may be directed to specific receivers selected by group code, region code, or individual identification number. Further, each receiver may be enabled to receive 1 or more of up to 8192 specific streams (such as news wires). A loss-of-signal output may be used to automatically switch over to a backup receiver, alternate antenna or program source.

The 21501 is available in a standard L band SCPC version for direct LNB applications as well as optional FM subcarrier versions. Standard 1 RU Rack Mount version is standard, a smaller footprint desktop version is also available. The receiver includes a universal switchmode AC power supply.

### 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

### EMERGENCY ALERT- OPTION Z

Single Channel Per Carrier FM FSK is a simple and time proven technology that does not need to rely on complex terrestrial infrastructure making it ideal for mission critical communications that must work faultlessly in time of disaster. The EAS Option Z 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 5000 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.

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# SATSTREAM 21501 SPECIFICATIONS

<b>Input Frequency Range</b>	
SCPC Version (Option A)	50.00 – 90.00 MHz
SCPC Version (Option B)	950 – 1450 MHz (standard L band)
SCPC Version (Option B1)	950 – 1750 MHz (extended L band)
Subcarrier Version (Option F)	100 KHz – 8.995 MHz
Subcarrier L Band tuner (Opt L)	950 – 1450 MHz
Frequency resolution – all inputs	1 KHz
<b>Modulation</b>	QPSK
<b>Forward Error Correction</b>	Viterbi ½ ¾ K=7
<b>MPEG Data Rates</b>	Standard rates from 32000 to 320000 bits/second
<b>Maximum total data rate</b>	375000 bits/second including MPEG, Data, Aux Audio
<b>Audio Output</b>	Two channels balanced 600 ohm, digital level adjust 20 Hz – 20 KHz at higher data rates
<b>Audio Dynamic Range</b>	Greater than 85 db
<b>Auxiliary Audio Output</b>	Single channel voice grade audio, unbalanced out
<b>Control/Supervisory Serial Port</b>	DB9 RS232 Configurable rates 2400-57600 bps
<b>Auxiliary Serial Data Port</b>	DB9 RS232 or RS485 Configurable rates 2400-230400 bps
<b>Relay Contact Closure Port</b>	4 or 8 SPDT (Form C) isolated relay contacts (DB25)
<b>Power requirements</b>	90-260 VAC 48-63 Hz less than 30 VA
<b>Dimensions</b>	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)

<b>DESCRIPTION OF OPTIONS FOR MODEL 21501</b>		
A:	SCPC Input Frequency	50.00 – 90.00 MHz
B:	SCPC input Frequency	950 – 1450 MHz
B1:	SCPC input Frequency	950 – 1750 MHz
C:	FM Subcarrier Input Freq	100 KHz – 8.995 MHz
E:	Ethernet LAN interface	Supervisory and control port
L:	L band tuner for video subcarrier	950- 1450 MHz (Direct LNB reception of subcarriers)
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	Provide locally synthesized EAS audio channel

Rack mount version with LCD/Status (Options RS)



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