

RDX-MS

DVB-S/S2 Receiver for Radio Applications



Main Features:

RDX-MS is designed for demanding broadcast applications, combining satellite reception, IP Stream inputs, dual MPX inputs, and a high-quality FM MPX output in a single, flexible platform with multiple Input Sources

Satellite Reception - Receive and process professional satellite services with high reliability.

The receiver is designed for broadcast environments where continuous operation, signal quality, and dependable performance are essential.

IP Stream Input - Broadcast Content over IP

In addition to satellite reception, the unit supports IP Stream inputs, enabling seamless integration into modern IP-based broadcast infrastructures. This expands the available options for content acquisition and distribution, allowing operators to select the most appropriate source for their network. Satellite + IP: complete freedom in content delivery.

Dual MPX Input - Two Independent MPX Sources

The receiver features dual MPX inputs, allowing two independent MPX signals to be connected to the system. This enables efficient signal management, source selection, and integration into professional broadcast workflows.

FM MPX Output - Ready for FM Broadcast Distribution

The processed signal is available through a professional FM MPX output, enabling direct integration with FM transmission and distribution systems.

From satellite and IP reception to MPX processing and FM distribution, the Professional Satellite Receiver provides a complete and versatile solution for modern broadcast networks.

DVB-S/S2 Audio Satellite Receiver

Dual IP Stream decoder

MPX Dual Inputs

Stereo and RDS coder included

3 MPX Out

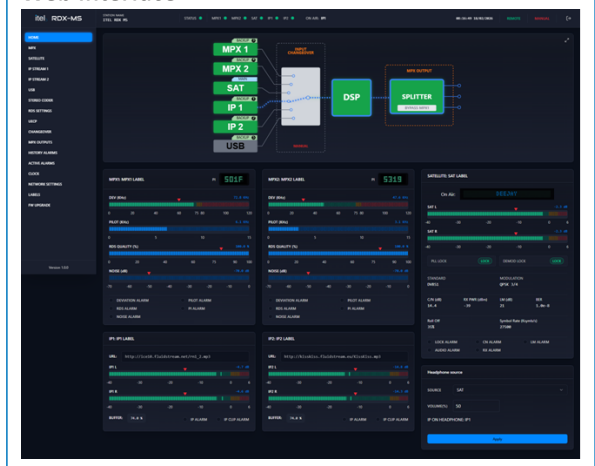
Flexible RT/RDS management from all the sources

Total WEB management

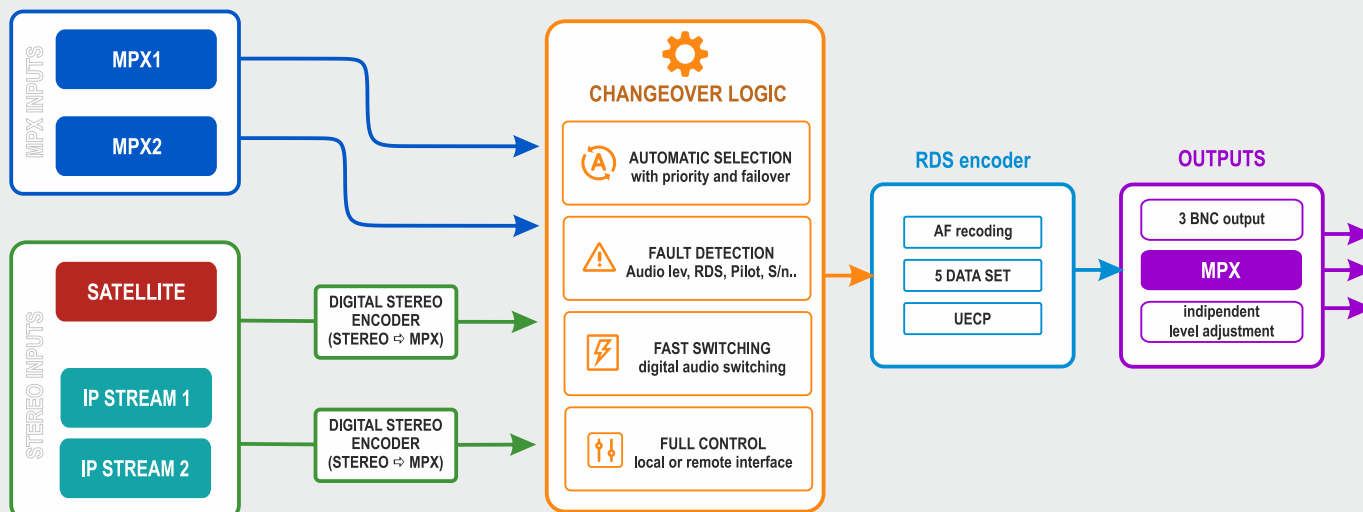
UECP

SNMP and SMTP control and management

Web Interface



RDX-MS - BLOCK DIAGRAM



Technical features

MPX INPUT

Connector	2x Unbalanced BNC – EMI Suppressed
Input Impedance	10 Kohm
Maximum Applicable Level	4dBu
A/D Conversion	PCM4222
General Features	Clipper on MPX Input Outband Noise and Pilot Control Bypass HW on MPX OUT

SATELLITE INPUT

STANDARDS	ETSI EN 300 421 (DVB-S) ETSI EN 300 307 (DVB-S2)
Connector	F Female
Input Impedance	75 Ohm
Frequency In	950-2150 MHz
LNB Control	13/18V, Off, 0/22KHz
RF Input Level	From 40 to 100dBuV
Constellation	QPSK, 8PSK, 16APSK, 32APSK
Symbol Rate	1-45 Msymb/s DVB-S, 2-45 Msymb/s DVB-S2
FEC	Auto
DVB-S2 Support	Mode CCM, VCM, Normal/Short FEC Frames ISSY Short/Long, NPD Mutistream Reception with ISI field PLS Supported MPEG-1 LI/II, AAC-LC
CODEC	

IP AUDIO INPUTS

Format	HTTP, HTTPS, RTP, AES67
Codec	AAC, HLS, MP3, WAVE, FLAC
Sample rate	32, 44.1, 48, 64, 96 KHz

MPX OUTPUT

Connector	Unbalanced BNC – EMI Suppressed
Output Impedance	10 ohms
Load Impedance	600 ohms or greater
Max Load Capacitance	5nF
Out Gain / Level	+8dB/+8dBm
Signal / Noise Ratio	≥ 85 dB (on 100 kHz band)
Composite out THD	0,01% (typical on the whole band)

STEREO ENCODER

Pilot Frequency	19 KHz +/- 1Hz
Pilot Injection	Adj from -25,0dB a -15,5dB (0,1 dB step); 6 to 18% of total deviation
Pilot Stability	±10 ppm (-10 to +55°C)
Pilot Distortion	0,05% (typical)
Pilot Distortion + Noise	0,068% (on 100KHz band)
Composite out THD	0,01% (typical on the whole band)
Stereo Separation	>70 dB (typical on the whole band)
Linear Crosstalk Main to Sub/Sub to Main	>70 dB (minimum) 30 Hz to 15 kHz (-0,1dB), 17 kHz (-70 dB), 19 kHz (-100 dB)
57 kHz (RDS/RBDS) Protection	Better than 51 dB
Pre-emphasis	Off, 50uS, 75uS (+/-0,1dB)
Freq Response Operation	±0,3 dB (30Hz-15kHz)
Operation	Mono / Stereo
Signal/Noise Ratio	≥ 85 dB (on 100 kHz band)
Carrier Suppression	> 85 dB

RDS ENCODER

DATA SET NUMBER MAIN	5
PS	5 DSN(Dataset Number)
PI	5 DSN(Dataset Number)
PTY	RDS
AF METHOD A	5 DSN * 25 AF
RT	5 DSN * 8 RT
RT+	YES
TP	YES
TA	CONTROL VIA GPIO / UECP
UECP	UECP EBU SPB490 v7.05

INTERFACE

NETWORK CONNECTIVITY	2 ETH PORTS
Configuration Software	Web Server/Local Display
Password Protection	YES
ALARM Notification	SMTP/SNMP/GPIO
NTP Supported	Set UP 4 NTP Servers
GPIO	4 Output 3 Inputs



Rear view