MediaKind RX8200

The RX8200 Advanced Modular Receiver is the world's bestselling IRD. Now with DVB-S2X and HEVC upgradeability it is also the most future-proof.

Broadcasters need to deploy receivers for many different tasks in many different operational circumstances. MediaKind's RX8200 receiver offers ultimate operational flexibility by providing capability for decoding of all video formats, all video compression formats and total connectivity for all transmission mediums via a comprehensive choice of options.

The RX8200 offers the ultimate in compression efficiency. RX8200 now provides HEVC decode capability. And for satellite operators RX8200 offers up to 20% bandwidth efficiency gains through full support of the new DVB-S2X international open standard. Combined, these two new technologies offer a step-change in transmission efficiency enabling Operators to dramatically reduce operational costs or free-up bandwidth to launch new revenue generating services.

Product Overview

Ultimate Efficiency

The RX8200 Advanced Modular Receiver offers ultimate bandwidth efficiency for satellite transmissions by incorporating the option for the new DVB-S2 Extensions (DVB-S2X) standard. DVB-S2X offers up to 20% bit rate efficiency for typical video applications.

Multi-format Decoding - Including HEVC

As a true multi-format decoder, the RX8200 can offer MPEG-4 AVC 4:2:0 and 4:2:2 High Definition decoding in all industry-standard compression formats, including HEVC. By using HEVC compression, combined with DVB-S2X (for satellite applications), Operators can benefit from a step-change in transmission efficiency.

Content Security and Traceability

The RX8200 protects content to the fullest extent by combining secure, smart-card-less conditional access functionality with forensic watermarking capability to uniquely and imperceptibly mark decoded content - allowing any down-stream leaked content to be traced back to source.

Total Connectivity

The RX8200 Advanced Modular Receiver offers the user total connectivity through the capability to provide satellite, ASI and IP transport stream inputs - including the latest SMPTE 2022-7 Seamless Switching technology, all within a single unit. With this flexibility the user is confident that their initial receiver investment is capable of adapting to a fast changing industry.

Highest Quality

The RX8200 has the capability to provide the ultimate feature-set of MPEG-4 HD, 4:2:2 10-bit 1080p50/60 allowing broadcasters to achieve the highest possible video quality.

Lowest Latency

Broadcasters are increasingly demanding lowest latency for contribution applications. MediaKind offers the complete low latency suite of tools for the user – whether that be high quality MPEG-4 decoding or the latest HEVC compression modes for optimal efficiency for satellite applications.

Why MediaKind

The MediaKind RX8200 heads its class as an IRD offering the perfect balance of industry leading capability, flexibility and affordability.

Base Unit Features

Chassis: (RX8200/BAS/B)

Base Value Pack: (RX8200/SWO/VP/BASE)

- Easy to use Dashboard web interface
- 1x ASI input transport stream input
- Frame Sync input
- BISS, Common Interface & MediaKind Director descrambling
- MediaKind RAS descrambling
- SD & HD Video output interfaces
- Single service filtering
- 2x Stereo pairs of physical audio connections
- Dolby Digital® decoding and pass-through
- Alarm relay and SCTE 35 controlled contact closures for ad-insertion signaling

RX8200 can be equipped with the following capability via additional Value Packs:

- MPEG-2, MPEG-4 and HEVC 4:2:0 SD/HD decode capability
- MPEG-2 4:2:2, MPEG-4 and HEVC 4:2:2 SD/HD capability

A comprehensive range of input options is also available including latest DVB-S2X satellite inputs, OFDM DVB-T and T2 and IP interfacing.

Connectivity Options

The RX8200 Advanced Modular Receiver has a single ASI input as standard and can be configured with additional inputs.

IP Transport Stream Input/Output Options

The RX8200 may be configured with IP transport stream input and output connectivity via the following options.

IP Transport Stream Input/Output

(RX8200/HWO/IP/I/O/B)

- IP transport stream output capability
- IP transport stream input capability with additional Value Pack
- 2x Gigabit Ethernet RJ-45 interfaces capability
- Encapsulation of transport stream on IP multicast
- Includes single service filtering on single SPTS IP output
- Remap outgoing PIDs when service filtering
- Includes SMPTE 2022M Pro-MPEG FEC capability for IP output
- Includes MPE based data de-encapsulation of IP data
- Multiple SPTS output stream with Multi-service Filtering Value Pack

IP Transport Stream Input Value Pack

RX8200/SWO/VP/IP/IN)

- Enables IP transport stream input for IP In/out card
- MPEG transport stream Input over IP
- 2x 100/1000BaseT input
- Very low latency
- SMPTE 2022M Pro-MPEG FEC capability included

IP Transport Stream Input with Seamless Switching Value Pack

RX8200/SWO/VP/IP/SEAMLESS)

- Enables SMPTE 2022-7 Seamless Switching on IP input
- Includes all other functionality as RX8200/SWO/VP/VP/IP/IN

Satellite Input Options

MediaKind offers capability for all satellite transmission standards including the new DVB-S2X international open standard which can deliver up to 20% efficiency gains over DVB-S2.

DVB-S2X Satellite Input (RX8200/HWO/S2X/B)*

- 4x L-band inputs
- DVB-S QPSK demodulation
- DVB-S2 QPSK, 8PSK, 16PSK demodulation
- DVB-S2X QPSK, 8PSK, 16PSK demodulation
- Low symbol rate capability
- Rolloffs down to 5%
- Multiple (x3) PL scrambling/Gold Code search
- DVB-S2 32APSK demodulation with additional Value Pack

*Upgrades may require RX8200/UPS/VP/BASE

DVB-S2X Higher Order Modulation Value Pack.

(RX82XX/SWO/VP/S2X/HOM)

Adds DVB-S2X 32APSK capability to DVB-S2X satellite input option

Second Generation DVB-S2 Capable Satellite Input (RX8200/HWO/S2/2/B)

- 4x L-band inputs
- DVB-S QPSK demodulation included
- DVB-S2 QPSK, 8PSK demodulation included
- DVB-S and DVB-S2 low symbol rate capability included
- Multiple (x3) PL scrambling/Gold Code search
- DVB-S2 16APSK & 32APSK demodulation with additional Value Pack

DVB-S2 Higher Order Modulation Value Pack

(RX82XX/SWO/VP/S2/HOM)

- Adds DVB-S2 16APSK and 32APSK capability to S2 satellite input option card

DVB-T/T2 Input Option

The RX8200 may be configured with an input to allow reception of DVB-T and DVB-T2 digital terrestrial signals.

DVB-T/T2 Input (RX8200/HWO/OFDM/B)

- 1x UHF/VHF input
- 6MHz, 7MHz and 8MHz input bandwidth
- DVB-T demodulation
- DVB-T2 demodulation capability
- Dual PLPs

G.703 ATM Input Option

The RX8200 may be configured with G.703 ATM connectivity.

G703 ATM Input (RX8200/HWO/G703/B)

- E3 or DS-3 inputs
- 34 Mbps or 45 Mbps rates

Input Redundancy

The RX8200 Advanced Modular Receiver offers as standard automatic redundancy switching between ASI input and the additional input option.

Remote Control Options

The RX8200 can be further enhanced by remote control capabilities.

RS232 Remote Control and Data (RX8200/HWO/RS232/B)

- RS232 remote control - Alteia protocol
- RS232 data output

Conditional Access Options

The RX8200 supports many types of widely used conditional access systems to allow for secure transmission of content. By default the RX8200 is fitted with the capability to accept Conditional Access Modules and comes pre-enabled for all frequently used single service CA systems. Additionally, the RX8200 may be ordered with the enhanced capability to support multi-service decryption

Multi-service Decryption (RX8200/SWO/VP/MSD)

- Multi-service decryption for Director by MediaKind
- Multi-service decryption DVB Common Interface
- Multi-service decryption for BISS
- Multi-service filtering (n from m service filtering)

Video Decoding Options

The RX8200 Advanced Modular Receiver provides capability to decode every video compression standard in use today including support for the newest and highest quality HEVC 4:2:2.

The RX8200 can be configured with the video decode capability of your choice - from the simplest SD to the most sophisticated HEVC 4:2:2 HD decoding.

4:2:0 Decode Options

MPEG-2 and MPEG-4 AVC SD 4:2:0 Decoding Value Pack (RX8200/SWO/VP/MP24/SD)

- Enables MPEG-2 SD and MPEG-4 AVC SD 4:2:0 decoding

MPEG-2 and MPEG-4 AVC SD/HD 4:2:0 Decoding Value Pack (RX8200/SWO/VP/MP24/HD)

- Enables MPEG-2 SD and HD, MPEG-4 AVC SD and HD 4:2:0 decoding

HEVC, MPEG-4, MPEG-2 SD/HD 4:2:0 Decoding Value Pack (RX8200/SWO/VP/HEVC)

- Enables MPEG-2 SD and HD, MPEG-4 AVC SD and HD, HEVC SD and HD 4:2:0 decoding
- Requires additional RX8200/HWO/HEVC/B option

4:2:2, Contribution Decode Options

HEVC 1080p, MPEG-2/MPEG-4 4:2:2 Decoding Hardware (RX8200/HWO/HEVC/B)

- Dormant hardware for HEVC and MPEG-2/MPEG-4 4:2:2 decoding
- HEVC 4:2:0 and 4:2:2 capable decoding hardware - up to 1080p
- Enables Low Latency decoding on any decode Value Pack purchased
- Enable decoding with additional Value Packs

MPEG-4 AVC and MPEG-2 SD & HD 4:2:2 Contribution Decoding Value Pack (RX8200/SWO/VP/CONT)

- Enables MPEG-4 AVC SD & HD 4:2:2 decoding
- Enables MPEG-2 SD & HD 4:2:2 decoding
- Requires additional RX8200/HWO/HEVC/B option

HEVC, MPEG-4 AVC and MPEG-2 SD & HD 4:2:2 Contribution Decoding Value Pack (RX8200/SWO/VP/CONT/HEVC)

- Enables HEVC SD & HD 4:2:2 decoding
- Enables MPEG-4 AVC SD & HD 4:2:2 decoding
- Enables MPEG-2 SD & HD 4:2:2 decoding
- Requires additional RX8200/HWO/HEVC/B option

Video Processing Options

The RX8200 offers a wide range of video processing capability to allow the decoded video to easily interface to HD and SD infrastructures.

High Quality Format Conversion Dormant Hardware (RX8200/HWO/HQCONV/B)

- Dormant format conversion hardware - Functionality enabled with additional Value Pack

High Quality Format Conversion Value Pack (RX8200/SWO/VP/HQCONV)

- Grade 1 quality Down-conversion of HD to SD
- Capability to Down-convert 1080p 50/60 to 1080i, 720p or SD
- Provides broadcast quality simultaneous down-conversion allowing one HD transmission to address both HD and SD distribution needs
- Up-conversion of SD to HD resolution (4:2:0 modes only)
- Non-simultaneous up-conversion to 720p or 1080i resolution
- Cross-conversion of HD video from 720p to 1080i or from 1080i to 720p (4:2:0 modes only)

SimulSync Value Pack (RX8200/SWO/VP/SSYNC)

- Provides synchronized, tiled 4k UHDTV capability
- Provides full frame , synchronized left & Right eye 3D capability
- Additionally requires HQ Format Conversion Value Pack
- Requires separate RX8200 unit for each HD 4k tile
- Requires separate RX8200 units for left & Right eye video decode

Audio Options

The RX8200 Advanced Modular Receiver provides many different audio capabilities to allow optimal connectivity for many wide-ranging and varied applications. Capability for 2x stereo pairs of audio decode and pass-through is included as standard. Decoded audio will be embedded in (HD)SDI outputs and output via physical audio interfaces.

Additional Balanced Audio Output (RX8200/HWO/AUD/B)

- Increase the number of physical balanced analog and digital outputs form 2x stereo pairs to 4x stereo pairs

4x Audio Capability (RX8200/SWO//VP/EXAUD)

- Enables up to eight decodes
- Enables pass-through of audio services three and four
- Compatible with MPEG-1 Layer II, Dolby Digital, AAC, Dolby®E and linear audio
- Embeds up to eight channels of audio into the (HD) SDI video output
- Enables Phase Aligned Audio using MPEG-1 Layer II or AAC audio
- Phase Aligned Audio in 2x aligned groups of 4x stereo pairs or 1x aligned group of 8x stereo pairs
- Requires additional audio output hardware (RX8200/HWO/BAL/AUD/B) if four stereo pairs of physical audio interfaces are desired

XLR Terminal Audio Break-Out Cable (RX8XXX/CABLE/XLR)

- Provides XLR terminal connections for analogue and digital audio output
- 1x stereo pair per breakout cable via 2x XLR connectors

Screw Terminal Audio Break-Out Cable (RX8XXX/CABLE/SCRTRM)

- Provides screw terminal connections for analog and digital audio output
- 1x stereo pair per breakout cable via 2x Screw terminal connectors

Specifications

Input

ASI Transport Stream Input	Connector: 1x BNC (F) 75 Ohm Max. input rate: 208 Mbps Packet length: 188/204 byte packets Standard: EN50083-9

Satellite Input Options

2nd Generation Satellite Input, Satellite & IP input	Connector: 4x F-Type (F), 75 Ohm Frequency range: 950 MHz to 2150 MHz Input level: -25 dBm to -65 dBm Modulation: DVB-S QPSK, DVB-S2 QPSK, 8PSK Standard: EN300 421, EN302 307 DVB-S Symbol rate: 1 Msyms to 45 Msyms DVB-S2 Symbol rate: 1 Msyms to 60Msyms on inputs 1 & 2, Max bit rate 170Mbps, 31 Msyms, Max bit rate: 81Mbps on input 3 & 4 FEC DVB-S : 1/2, 2/3, 3/4, 5/6, 7/8 FEC DVB-S2 QPSK: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 FEC, DVB-S2 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 DVB-S2 FEC frame: Short & Normal frames DVB-S2 Physical layer scrambling LNB Power: 13V, 18V or off, 22 kHz on/off
DVB-S2 HOM	Modulation: DVB-S2 16APSK and 32APSK FEC, DVB-S2 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 FEC, DVB-S2 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10 Requires DVB-S2 Capable Satellite Input (RX8200/HWO/S2/2/B)
DVB-S2X Satellite Input	Connector: 4x F-Type (F), 75 Ohm Frequency range: 950 MHz to 2150 MHz Input level: -25 dBm to -65 dBm nominal (Symbol rate dependent) Modulation: DVB-S QPSK, DVB-S2 QPSK, 8PSK, 16APSK, DVB-S2X QPSK, 8PSK, 16APSK Standard: EN300 421, EN302 307-1, EN302 307-2 DVB-S Symbol rate: 1 Msyms to 45 Msyms DVB-S2 Symbol rate: 1 Msyms to 54Msyms Max bit rate 170Mbps DVB-S2X Symbol rate: 54MSyms DVB-S2 FEC frame: Short & Normal frames DVB-S2 Physical layer scrambling LNB Power: 13V, 18V or off, 22 kHz on/off
DVB-S2X HOM	Modulation: DVB-S2X 32APSK Requires DVB-S2X Satellite Input (RX8200/HWO/S2X/B)

IP Input

MPEG over Gigabit Ethernet IP Input (FAZ 101 0113/252, 281)	Connector: 2 x RJ 45 Format: 100/1000BaseT Max. input rate: 208Mbps SMPTE 2022M (Pro-MPEG) FEC

G703 Input Options

MediaKind G.703	Connector: BNC (F) Network: G.703 compliant PDH Input: E3 or DS-3 (selectable) Bit-rates: 34 Mbps or 45 Mbps versions

DVB-T/T2 Input Options

DVB-T/T2 Input	Connector: 1x F-Type (F) 75 Ohm Channel bandwidth: 6, 7, 8MHz Frequency range: UHF 470 – 862 MHz, VHF 174 – 230 MHz Input MER level: 6 - 36dB

TS Output

TS Output	For ASI Out See HD & SD video out options
IP Output	Transport encapsulation into IP MPTS/IP/UDP/RTP SPTS/IP/UDP/RTP with single service filtering - CBR mode IP output VBR mode - Null packets dropped 2x Gigabit Ethernet outputs, 100/1000 auto-sensing SMPTE 2022M (Pro-MPEG) FEC Multiple services filtered to 1 outgoing service on ASI and IP TS output Remap PIDs for the filtered service Output: CBR on ASI and IP SPTS MPE based data de-encapsulation MPE max. bit-rate: 100 Mbps

Content Security

Director by MediaKind	Director single service decryption Director over-air remote control NexGuard Network ID Forensic Watermarking
DVB Common Interface	Enables support for all major CAM modules Single service decryption Service pre-filtering
BISS Decryption	Decryption of BISS Mode 1 and E
Multi-Service Decryption/Filtering	Director multi-service decryption Decryption of up to 24 services Common Interface multi-service decryption Single CAM, up to 10 services or 24 PIDs BISS multi-service decryption Decryption of up to 24 services Filter N incoming services to M outgoing services Number of services: 24 max as 1x MPTS. Remap PIDs on a single service Output: CBR on ASI and IP MPTS Stream splitting - up to 8 services as IP SPTS

VIDEO DECODING OPTIONS

4:2:0 Decoding

MPEG-2 SD Decode	Profiles: MP@ML Max video rate: 15 Mbps (MP@ML) Video format: 480i and 576i 29.97, 25 fps
MPEG-4 AVC SD Decode	Profiles: MP@L3 - All units HP@L3.1—Needs MPEG-2 & 4 4:2:2 HW option Max. video rate: 12 Mbps - All units 17.5 Mbps - Needs 4:2:2 HW option Video format: 480i and 576i 29.97, 25 fps
HEVC SD Decode	HEVC Profiles: MAIN / MAIN10 Sampling: 8-bit and 10-bit Levels and max. video rate L3 - 6 Mbps, L3.1 - 10 Mbps L4 - 30 Mbps, L4.1 - 50 Mbps Video format: 480i and 576i 29.97, 25 fps
MPEG-2 HD Decode	Profiles: MP@HL Max. video rate: 80 Mbps (MP@HL) Video format: 1080i at 29.97 and 25 fps, 720p at 59.94 and 50 fps
MPEG-4 AVC HD Decode	Profiles: MP@L4, HP@L4 - All units HP@L4.1 - Needs MPEG-2 & 4 4:2:2 HW option Max. video rate: 25 Mbps - All units, 62.5Mbps - Needs 4:2:2 HW option Video format: 1080i at 29.97 and 25 fps, 720p at 59.94 and 50 fps
HEVC HD Decode	HEVC Profiles: MAIN / MAIN10 Sampling: 8-bit and 10-bit Levels and max. video rate L4 - 30 Mbps, L4.1 - 50 Mbps Video format: 1080i at 29.97 and 25 fps, 720p at 59.94 and 50 fps
VBI with 4:2:0 Decoding Modes	Closed captions, DVB Subtitle burn-in, SD resolution Teletext burn-in WST, Inverted Teletext, EBU Teletext subtitles and non-subtitles, WSS, VITC, VITC in PES, VPS, Video Index, VANC data-piping, Service name in VANC, monochrome samples, OP47 pass-through VITS, NABTS, AMOL48, AMOL96, TV Guide

4:2:2 Decoding

MPEG-2 SD 4:2:2	Profile: 422@ML Max. video rate: 50 Mbps Video format: 480i and 576i 29.97, 25 fps
MPEG-2 HD 4:2:2	Profiles: 422P@HL Max. video rate: 90 Mbps Video format: 1080i at 29.97, 30 and 25 fps, 720p at 59.94, 60 and 50 fps
MPEG-4 AVC SD 4:2:2	MPEG-4 Profile: 422HP@L3 Max. video rate: 50 Mbps Video format: 480i and 576i 29.97, 25 fps
HEVC SD 4:2:2	HEVC Profile: MAIN 4:2:2:10 Sampling: 8-bit and 10-bit Levels and max. video rate: L3 - 6 Mbps, L3.1 - 10 Mbps L4 - 30 Mbps, L4.1 - 50Mbps Video format: 480i and 576i 29.97, 25 fps
MPEG-4 AVC HD 4:2:2 Decode	MPEG-4 Profiles: HIGH / HIGH10 / HIGH422@L4.2 Sampling: 8-bit and 10-bit Max. video rate: 50 Mbps CABAC, 85 Mbps CAVLC Video format: 1080i at 29.97 and 25 fps 720p at 59.94 and 50 fps
HEVC HD 4:2:2 Decode	HEVC Profiles: MAIN 4:2:2 10@L4.2 Sampling: 8-bit and 10-bit Levels and max. video rate L4 - 30 Mbps,L4.1 - 50 Mbps Video format: 1080i at 29.97 and 25 fps 720p at 59.94 and 50 fps
MPEG-4 AVC HD 4:2:2 1080p 50/60 decode	Profiles: 422HP@L4.2 Max video rate: 85 Mbps CAVLC Video format: 1080p at 59.94 and 50fps
VBI with 4:2:2 decoding modes	Closed Captions, VITC, VBI in PIX

Audio Options

Balanced Audio Output	Connector: 2x 9-Pin D-type Analog audio: two balanced stereo pairs Digital audio: two balanced stereo pairs QTY 1 fitted as standard QTY 2 can be fitted for 4x stereo pair output - requires RX8200/SWO/4AUD)
Standard with any Video Decode Option:	2x MPEG-1 Layer-II audio decode 2x Dolby Digital® decode 2x Dolby Digital® Pass-through 2x Dolby® Digital Plus Pass-through 2x Dolby®E pass-through 2x Linear PCM decode Audio sampling rate: 48 kHz Decoded audio gain adjustment
Dolby® Digital	2x Dolby® Digital 5.1 decode and down-mix to 2.0* 2x Dolby® Digital 2.0/5.1 pass-through compressed and embedded in (HD)SDI 1x Dolby® Digital 5.1 decode*
Dolby® Digital Plus	2x Dolby® Digital Plus 2.0/5.1 pass-through compressed and embedded in (HD)SDI
AAC Audio	2x 5.1 down-mix to 2.0 2x 2.0 decode 1x 5.1 decode*
Phase Aligned Audio	MPEG-1 Layer II audio or AAC audio 2x phase aligned groups of 4x stereo pairs, or 1x group of 8x stereo pairs Phase aligned to enable 5.1 carriage Requires Extra audio Value Pack *4x Audio Capability* (RX8200/SWO//VP/EXAUD)
4x Audio Capability	Extends licensed audio decodes to more channels 8x MPEG-1 Layer II audio decode 6x Dolby® Digital 2.0 decode, 5.1 to 2.0 down-mix 4x Dolby® Digital 2.0/5.1 pass-through - compressed and embedded in (HD)SDI 4x Dolby® Digital Plus 2.0/5/1 pass-through - compressed and embedded in (HD)SDI 1x Dolby® Digital 5.1 decode 8x AAC stereo pairs 4x Dolby®E pass-through

*License key dependent

Video Processing

High Quality Format-Conversion Grade 1 quality down-conversion	Simultaneous Down-conversion (HD to SD): center cut out, manual/AFD controlled Down-conversion from 1080p 50/60 to 1080i, 720p or SD
Up-conversion	Non-simultaneous up-conversion (SD to HD): To 720p or 1080i (4:2:0 modes only)
Cross-conversion	Non-simultaneous cross-conversion 720p to 1080i or 1080 to 720p No frame rate conversion
Aspect Ratio Conversion	16:9 to 4:3 center cut ARC in SD modes
Frame Synchronization	Enables Frame Sync Connector: 1x BNC (F) 75 Ohm Input signal: Analog SD HSync (black & burst)

Video and TS Output

Video Output

HD and SD Video Output Composite Video	Connector: 1x BNC (F) 75 Ohm Format: PAL / NTSC
Video RGB-HD (SVGA)	Connector: 1x 15-pin D-type Format: RGB H&V/YPrPb (switchable)
SDI/HD-SDI/DVB ASI-C (switchable)	Connector: 3x BNC 75 ohms 3 Gbps HD-SDI standard: SMPTE 424M HD-SDI standard: SMPTE 292M SD-SDI standard: SMPTE 259M Embedded Audio: SMPTE 299M (HD) SMPTE 272M (SD) Embedded Audio Channels: up to 8x stereo pairs ASI standard: EN50083-9

Data and Control Options

RS232 Remote Control and Data	Remote control connector: 1x 9-pin D-type RS232 remote control MediaKind Alteia protocol RS232 data connector: 1x 9-pin D-type RS232 asynchronous data RS232 data rate: Max. 38.4 kbps

Standard Features

Features	Program selection for ATSC, DVB and MPEG-only streams One alarm relay, two relays under SCTE 35 control
Control	Front panel keypad and LCD SNMP control, traps and alarms Web browser

Physical and Power

Dimensions (W x D x H)	442.5 x 545 x 44mm (17.5“ x 20.7“ x 1.75“ approx.)
Input Voltage	90 VAC / 240 VAC
Power Consumption	100W Max. (depending on options fitted)
Cooling	Integrated fan

Environmental Conditions

Operating Temperature	0°C to +50°C (32° to 122°F)
Storage Temperature	-20°C to +60°C (-4° to 140°F)
Relative Humidity	5% to 95%

Compliance

Compliance	CE Marked in accordance with all applicable EU Directives
EMC Compliance	EN55022, EN55024, EN61000-3-2, EN61000-3-3, AS/NZS CISPR 22, ICES-003 and FCC CFR47 Part 15B Class A
Safety Compliance	EN60950-1, IEC60950-1, UL 60950-1 and CAN/CSA-C22.2 No 60950-1. NRTL Listed.