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CMP100 Media Platform

Product Overview

CMP100 Media Platform

What is CMP100?

- High performance, high stability, high flexibility
- Video processing platform with flexible configuration.
- Satellite/Cable/Terrestrial program receiving&descrambling
- Local program encoding.
- Processing&distributing programs to Cable/IPTV network.

Which application is it used for?

- MDU digital TV head-end system, such as hotel, cruise…
- Remote education video distribution
- Small DTV head-end system (e.g. digitalization)
- Various signal sources processing for IPTV/OTT system
- and etc.

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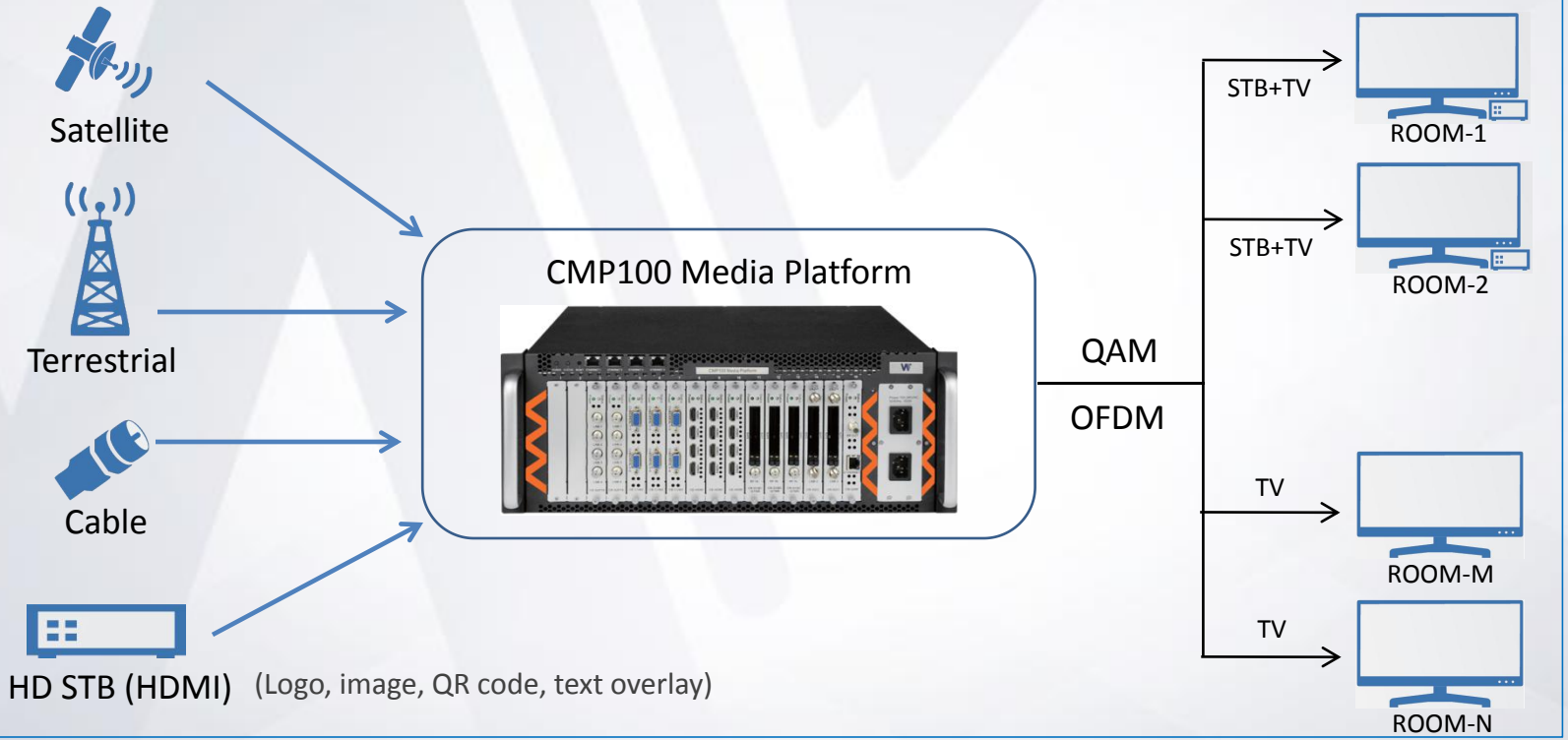
Product Features

- **Dense modular design**
  - 4 RU, up to 16 hot-swappable functional modules, dual power supplies
  - Embedded 4 GbE RJ45 interfaces for management and IP stream in/out
- **Flexible combination**
  - HDMI/SDI/CVBS encoder (logo/image/text overlay in HiSilicon solution)
  - DVB-S/S2/T/T2/C&8VSB&ISDB-T receiver with CI slots for descrambling
  - QAM-A/B/C&DTMB&OFDM&ISDB-T modulator (ISDB-T is coming soon)
- **Service level multiplexing crossing different modules**
- **Any PID pass-through, keep important original data without any change.**
- **Real-time service monitoring on signal sources and output streams.**

CMP100 Applications

Digital Head-End for MDU's cable TV System



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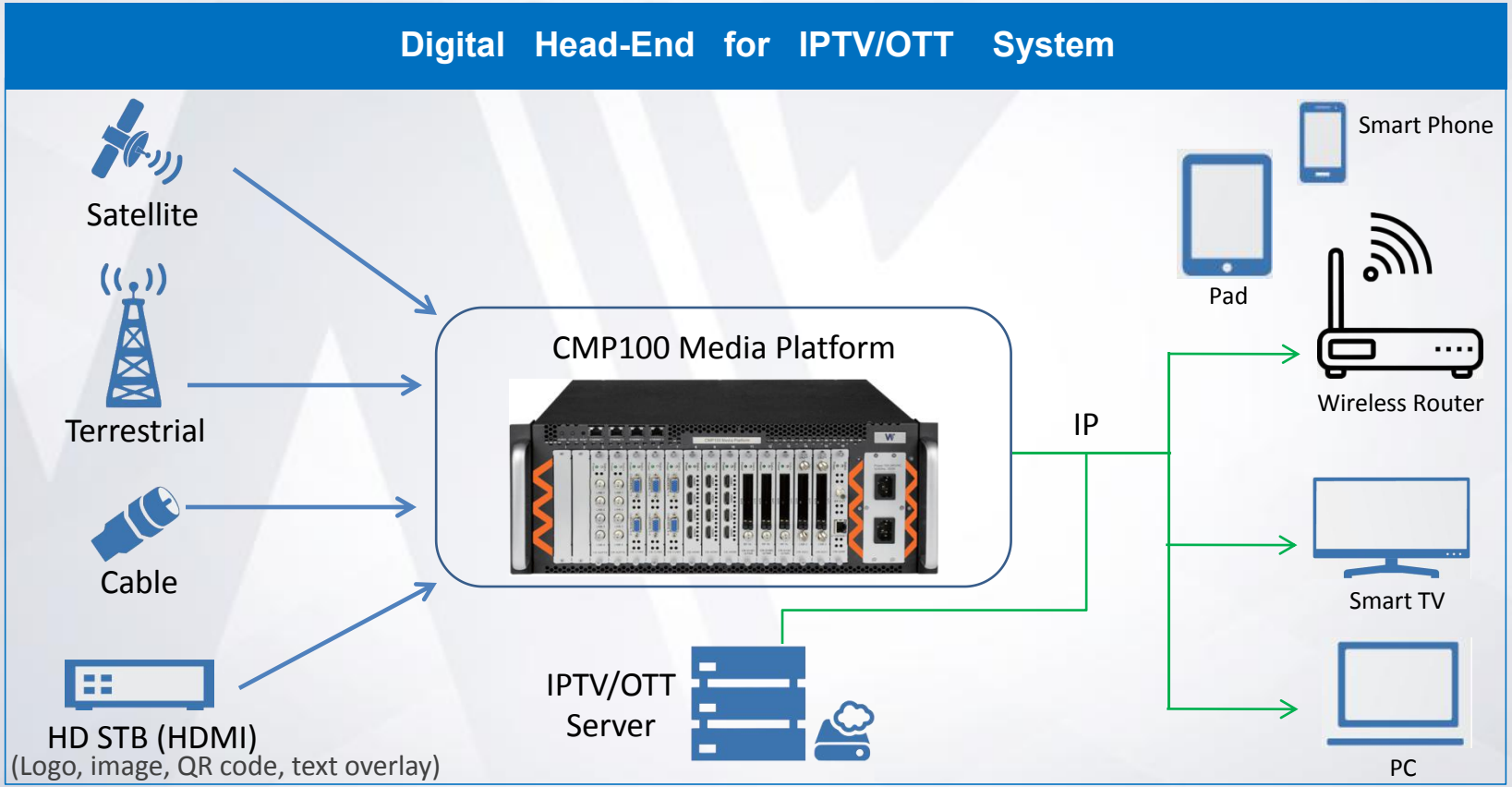
CMP100 Applications



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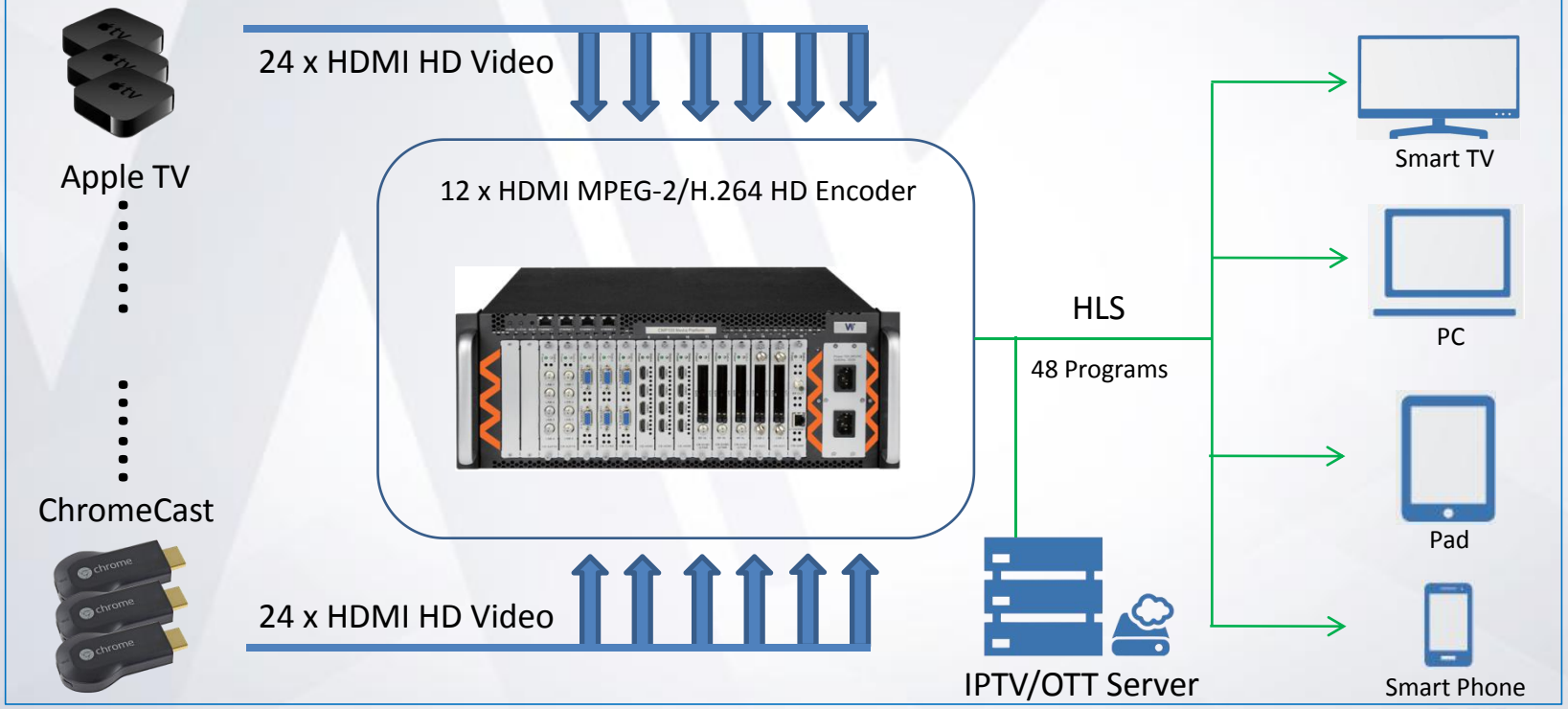
CMP100 Applications

CASE -- Cruise Digital TV Entertainment System



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CMP100 Specifications - Chassis

- 16 hot-swappable slots, flexible module combination
- 4 x Gigabit RJ45 (2 x MGMT ports, 2 x data ports)
-MPEG TS over UDP/RTP multicast/unicast, SPTS/MPTS
- Multiple outputs: QAM/ATSC/ISDBT/OFDM and IP
- Max. 120 IP inputs and 120 IP outputs
- Max. 800Mbps effective bandwidth
- Service level multiplexing
- Dual redundant power supplies

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CMP100 Specifications – Receiver module

DVB-C Annex A/C /DTMB Receiver Module

(CR-DVBC-00)

DVB-C Mode:

- Annex A/C
- 1 x female F-type RF input, 4 frequencies.
- 2 x PCMCIA CI slots
- Frequency Range: 47-862MHz
- Symbol Rate: 5.057 Ms/s (64QAM), 5.360 Ms/s (256QAM)
- Signal Level: 40~80 dBuV

DTMB Mode:

- 1 x female F-type RF input, 4 frequencies.
- 2 x PCMCIA CI slots
- Frequency Range: 47-862MHz
- Signal Level: -65~-25 dm

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CMP100 Specifications – Receiver module

DVB-C Annex B /ISDB-T Receiver Module

(CR-DVBC-01)

DVB-C Mode:

- Annex B
- 1 x female F-type RF input, 4 frequencies.
- 2 x PCMCIA CI slots
- Frequency Range: 47-862MHz
- Symbol Rate: 5.057 Ms/s (64QAM), 5.360 Ms/s (256QAM)
- Signal Level: 40~80 dBuV

ISDB-T Mode:

- 1 x female F-type RF input, 4 frequencies.
- 2 x PCMCIA CI slots
- Frequency Range: 47-862MHz
- Signal Level: -80~-20 dBm

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CMP100 Specifications – Receiver module

DVB-T/T2 Receiver Module

(CR-DVBT2CI-00)

- DVB-T/T2
- 1 x female F-type RF input, 4 frequencies
- 2 x PCMCIA CI slots
- Frequency Range: 47-862MHz
- FFT Size: 2K/8K(DVBT), 1K/2K/4K/8K/16K/32K(DVBT2)
- Signal Level: -80~-20 dBm

DVB-S/S2 FTA Receiver Module
(CR-DVBS2FTA-00A)

- DVB-S/S2, FTA
- 8 x female F-type RF inputs, 8 frequencies
- LNB Power: 13V / 18V
-Symbol Rate: 1~45 Msps (DVB-S/S2)
- Frequency Range: 950-2150MHz
- Signal Level: -70~-20 dBm

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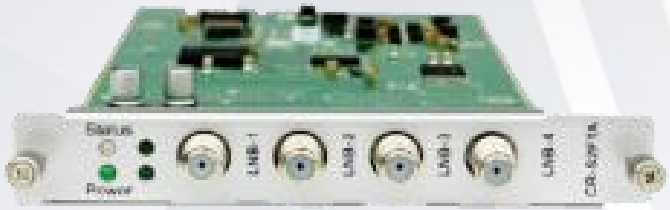
CMP100 Specifications – Receiver module



DVB-S/S2 FTA Receiver Module
(CR-DVBS2FTA-00)

- DVB-S/S2, FTA
- 4 x female F-type RF inputs, 4 frequencies
- LNB Power: 13V / 18V
-Symbol Rate: 1~45 Msps (DVB-S/S2)
- Frequency Range: 950-2150MHz
- Signal Level: -70~-20 dBm

DVB-S/S2 with CI Receiver Module
(CR-DVBS2CI-00)

- DVB-S/S2, Encrypted
- 2 x female F-type RF inputs, 4 frequencies
- 2 x PCMCIA CI slots
- LNB Power: 13V / 18V
-Symbol Rate: 1~45 Msps (DVB-S/S2)
- Frequency Range: 950-2150MHz
- Signal Level: -70~-20 dBm

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CMP100 Specifications – Receiver module

8VSB Receiver Module
(CR-8VSB-00)

- 8VSB, FTA
- 4 x female F-type RF inputs, 4 frequencies
- Bandwidth: 6MHz
- Frequency Range: 50-860MHz
- Signal Level: -80~-20 dBm

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CMP100 Specifications – Processing module

EAS processing Module
(CP-EAS-00)

- 1*ASI EAS IN, 1*IP EAS IN, 3* RCA IN (for analog video/audio)
- 1*Contact closure (3 PINs)
- Analog signaling or digital signaling(SCTE-18)
- Analogue encoding format: H.264/MPEG-2, AC3/AAC/MPEG1L2
- Program switching time: less than 1s

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CMP100 Specifications – Encoder module

Professional HDMI Encoder Module
(CE-HDMI-00)

- Socionext chipset solution
- 4 x HDMI 1.4
- H.264/AVC HD/SD, MPEG-2 SD
- Resolution: SD 576i/480i, HD 720p/1080i/1080p30
- Video Bitrate: 1,000~14,000 Kbps
- Audio format: MPEG-1 Layer II, AAC, AC3

Commercial HDMI Encoder Module
(CE-HDMI-01/R01)

- HiSilicon chipset solution
- 4 x HDMI 1.4
- H.264/AVC HD/SD
- Resolution: SD 576i/480i, HD 720p/1080i/1080p30
- Video Bitrate: 600~12,000 Kbps
- Audio format: MPEG-1 Layer II, AAC, AC3
- Logo(transparent background), image, QR Code, text overlay

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CMP100 Specifications – Encoder module

HDMI Encoder Module (CE-HDMI-02)

- ViXS chipset solution
- 2 x HDMI 1.4, 2 x RCA (for CC input)
-H.264/AVC SD/HD(up to 1080p60) , MPEG-2 SD/HD(up to 1080i60)
- Resolution: SD 576i/480i, HD 720p/1080i/1080p60
- Video Bitrate: 1,000~14,000 Kbps
- Audio format: MPEG-1 Layer II, AAC, AC3
- Dual audios encoding

HDMI Encoder Module (CE-HDMI-02C)

- ViXS chipset solution
- 2 x HDMI 1.4, 1 x DB15 (for YPbPr/CC/analog audio inputs)
- H.264/AVC SD/HD(up to 1080p60) , MPEG-2 SD/HD(up to 1080i60)
- Resolution: SD 576i/480i, HD 720p/1080i/1080p60
- Video Bitrate: 1,000~14,000 Kbps
- Audio format: MPEG-1 Layer II, AAC, AC3
- Dual audios encoding

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CMP100 Specifications – Encoder module

Commercial HDMI Encoder Module
(CE-HDMI-04) Coming soon

- HiSilicon chipset solution
- 4 x HDMI 1.4
- H.264/AVC HD/SD
- Resolution: SD 576i/480i, HD 720p/1080i/1080p30
- Video Bitrate: 600~12,000 Kbps
- Audio format: MPEG-1 Layer II, AAC, AC3
- Logo(transparent background), image, QR Code, text overlay

SDI Encoder Module
(CE-SDI-00)

- ViXS chipset solution
- 2 x BNC, 2 x 6-pins interfaces (for analog audio inputs)
- H.264/AVC SD/HD(up to 1080p60) , MPEG-2 SD/HD(up to 1080i60)
- Resolution: SD 576i/480i, HD 720p/1080i/1080p60
- Video Bitrate: 1,000~14,000 Kbps
- Audio format: MPEG-1 Layer II, AAC, AC3
- Dual audios encoding

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CMP100 Specifications – Encoder module

Professional CVBS Encoder Module (CE-CVBS-00)

- Socionext chipset solution
- 2 x DB15, support 6 analog video/audio inputs
- H.264/AVC SD, MPEG-2 SD
- Resolution: SD 576i/480i
- Video Bitrate: 1,000~6,000 Kbps
- Audio format: MPEG-1 Layer II, AAC, AC3

Commercial CVBS Encoder Module (CE-CVBS-R01)

- HiSilicon chipset solution
- 2 x DB15, support 8 analog video/audio inputs
- H.264/AVC SD
- Resolution: SD 576i/480i
- Video Bitrate: 600~6,000 Kbps
- Audio format: MPEG-1 Layer II, AAC, AC3
- Logo, image, text overlay

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CMP100 Specifications – Modulator module

QAM Modulation Module
(CM-QAMA/QAMB-00/R00)

- QAM, Annex-A/C or B
- 1 x RF OUT, 16 non-adjacent frequencies
- Frequency Range: 47~862 MHz
- Symbol Rate: 3.6~6.9 Ms/s
- Output Level: Max. 106 dBμV
- MER: ≥40dB

QAM Modulation Module
(CM-QAMA/QAMB-R01/R01A)

- QAM, Annex-A/C or B
- 1 x RF OUT, 4/8 frequencies
- Frequency Range: 47~862 MHz
- Symbol Rate: 3.6~6.9 Ms/s
- Output Level: Max. 105 dBμV
- MER: ≥32dB

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CMP100 Specifications – Modulator module

OFDM Modulation Module
(CM-OFDM-R01/R01A)

- OFDM
- 1 x RF OUT, 4/8 frequencies
- Frequency Range: 47~862 MHz
- Output Level: Max. 105 dBμV
- MER: ≥32dB
- FFT Size: 2K, 8K

DTMB Modulation Module
(CM-DTMB-R01/R01A)

- DTMB, Single Carrier
- 1 x RF OUT, 4/8 frequencies
- Frequency Range: 47~862 MHz
- Output Level: Max. 105 dBμV
- MER: ≥32dB

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CMP100 Specifications – Modulator module

ISDB-T Modulation Module
(CM-ISDBT-R01/R01A)

- ISDB-T
- 1 x RF OUT, 4/8 frequencies
- Frequency Range: 57-860 MHz
- Output Level: Max. 104 dBμV
- MER: ≥32dB
- Transmission Mode: 2K

ATSC(8VSB) Modulation Module
(CM-ATSC-R01/R01A)

- ATSC (8VSB)
- 1 x RF OUT, 4/8 frequencies
- Frequency Range: 57~803 MHz
- Output Level: Max. 105 dBμV
- MER: ≥32dB

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