

Omniscreen OMM8000 series encoder modulator is a compact and easy-to-deploy solution for in-house TV channel and/or digital signage delivery in corporate and hospitality markets. This all-in-one system replaces multiple complex devices.



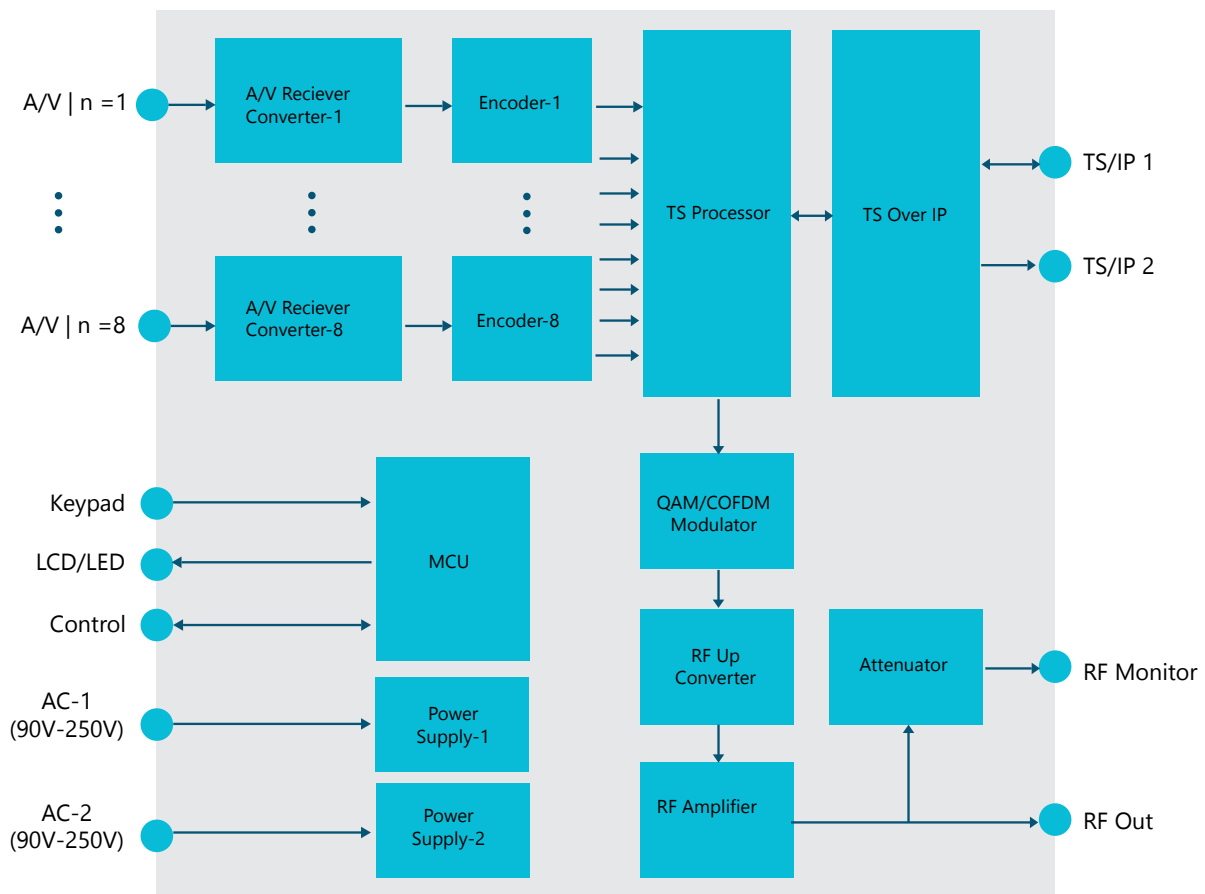
KEY FEATURES

- Compliant with H.264/AVC HP@L4.0 & MPEG-2 MP @ML
- HD/SD video resolutions: 1080i, 720p, 576i, 480i
- Internal multiplexer, supporting both MPTS & SPTS processing
- Total input TS data rate up to 200 Mbit/s
- RF Modulator options: DVB-T, DVB-C & DVB-T2 (factory option)
- RF Output Level 120dB μ V
- Remote control/monitoring with SNMP and HTTP/Web interface
- Two Redundant Power Supplies

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FUNCTIONAL BLOCK DIAGRAM



OMM8000 series encoder modulators consist of multiple H.264/MPEG-2 encoder modules, MPEG Transport Stream (TS) multiplexer, DVB RF modulator and IP streaming module. All encoders are real-time and independently operated.

Each encoder accepts one stereo program either through its HDMI input or through analogue video input. These encoded programs could be multiplexed into single TS. The default PSI/SI tables (including Logical Channel Number) are generated automatically and are editable by the end user. The TS could be modulated onto one DVB RF carrier, including QAM or COFDM.

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VIDEO

Input Interface	HDMI, type A female x 8, or CVBS RCA-female 75Ω x 8
Encode Standard	H.264/AVC HP@L4.0&MPEG-2 MP@ ML H.264/AVC MP@L4.0&MPEG-2 MP@ ML(8100EM, SD)
Chrominance Sampling Format	4:2:0
Output Resolution Settings & their recommend range	1080i (1920 x 1080) @25Hz,29.97Hz,30Hz:SMPTE274M:1~13Mb/s 720p (1280 x 720) @25Hz,29.97Hz,30Hz:SMP- TE296M:1~13mb/s 480i (720 x 480) @25Hz:SMPTE656M:800K~8Mb/s 576i (720 x 576) @25Hz:SMPTE656M:800K~8Mb/s
Video Resolution Down Scaling	Vertical & Horizontal adjustable respectively (frame rate is not scalable)
Aspect Ratio	4:3 or 16:9, configurable

TS/IP Mode 1: Full Duplex
Single TS in, Single TS out

Standard	IEEE 802.3, 10/100/1000 Base-T
Maximum Bit Rate	120Mb/s Full Duplex
Data Encapsulation	UDP, RTP, SPTS or MPTS
Protocol	ICMP, ARP, IGMPv2, IGMPv3

TS/IP Mode 2:
128 Channel IPTV Mode

Standard	IEEE 802.3 10/100/1000 Base-T
Output	128 Channels
Maximum Effective Bit Rate	400Mb/s
UDP/RTP	SPTS or MPTS
Protocol	ICMP, ARP, IGMPv2, IGMPv3

OTHERS

Input AC Voltage Range	AC100~260V 50/60Hz
Operating Temperature	0 ~40°C
Storage Temperature	-10 ~ 60°C
Operating Humidity	10 ~ 90%, Non-condensed

DVB-C/ QAM

Standard	J.83 Annex A: 16/32/64/128/256QAM: J.83 Annex B: 64B/256B
Constellation	16QAM, 32QAM, 64QAM, 128QAM, 256QAM
Symbol Rate	3~7.2MS/s
BER	≤10E-9
MER	>35dB (with Tester Equalizer enabled)

DVB-T

Constellation	QPSK/16QAM/64QAM
Band Width	6/7/8MHz
Carrier Mode	2K/8K
Guard Interval	1/4, 1/8, 1/16, 1/32
FEC Punch Rate	1/2, 2/3, 3/4, 5/6, 7/8
Modulation to Error Ratio, MER	>36dB

DVB-T2

Constellation	QPSK/16QAM/64QAM/128QAM/256QAM
Band Width	6/7/8MHz
Carrier Mode	2K/4K/8K/16K
PLP Count	Single
Guard Interval	1/4, 1/8, 1/16, 1/32
FEC Punch Rate	1/2, 2/3, 3/4, 5/6, 7/8
Modulation to Error Ratio, MER	>36dB

AUDIO

Input Interface	HDMI embedded x 8 or RCA-female pair x 8
Encode Standard	MPEG1 Layer II, MPEG-2/4 AAC-LC, HE-AAC(V1, V2)
Sampling Frequency	48KHz
Encoder Bit Rate Range	MPEG1 Layer II: 32~192Kbps(Mono), 64~384Kbps(Stereo) MPEG2/4 AAC-LC: 24~256Kbps(Mono), 48~512Kbps(Stereo) MPEG2/4 HE-AAC(V1/V2): 16~128Kbps(Mono), 32~256Kbps(Stereo)

RF OUTPUT

Output Interface	1x F type female, 75Ω
Output Frequency Range	100 ~ 862MHz, step by 10Khz
Maximum RF Output Level	120dBμV +3dB, step by 1dB
Spurious Rejection	>55dBc @ 120dBuV
Return Loss	≥12dB(typ.)

REAR PANEL

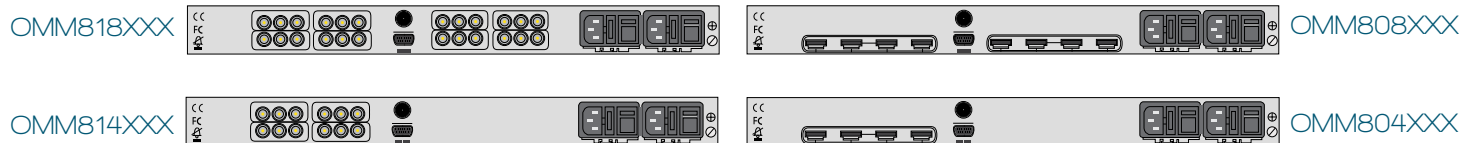
HDMI In	HDMI x 8
CVBS In	RCA Female, 75Ω x 8
RF Out	F-female, 75Ω x 1

FRONT PANEL

Control	RJ-45, 10/100 Base-T x 1, USB x 1
TS/IP	RJ-45, 10/100/1000 Base-T x 1
Display	2x16 LCD module
RF Monitor -20dB	F-female, 75Ω x 1

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REAR PANEL INTERFACE



ORDERING INFORMATION

Description	RF Output	Encoder Input	Encoder Quantity	TS-Over-IP Output Option	AAC Codec Support
OMM8080HC	DVB-C	HDMI	8	—	✓
OMM8080HT	DVB-T				
OMM8080HT2	DVB-T2				
OMM8082HC	DVB-C	HDMI	8	✓	✓
OMM8082HT	DVB-T				
OMM8082HT2	DVB-T2				
OMM8040HC	DVB-C	HDMI	4	—	✓
OMM8040HT	DVB-T				
OMM8040HT2	DVB-T2				
OMM8042HC	DVB-C	HDMI	4	✓	✓
OMM8042HT	DVB-T				
OMM8042HT2	DVB-T2				
OMM8180CC	DVB-C	CBVS & Audio	8	—	—
OMM8180CT	DVB-T				
OMM8180CT2	DVB-T2				
OMM8182CC	DVB-C	CBVS & Audio	8	✓	—
OMM8182CT	DVB-T				
OMM8182CT2	DVB-T2				
OMM8140CC	DVB-C	CBVS & Audio	4	—	—
OMM8140CT	DVB-T				
OMM8140CT2	DVB-T2				
OMM8142CC	DVB-C	CBVS & Audio	4	✓	—
OMM8142CT	DVB-T				
OMM8142CT2	DVB-T2				

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