



# OMCP-1000

## MODULAR CONTENT PROCESSOR



The Omniscreen OMCP-1000 Modular Content Processor is a compact and cost-effective solution for enterprise and hospitality IPTV/MATV headends. OMCP-1000 is housed in a 1RU chassis with up to six module slots and dual redundant power supplies.

### Key Features

Integrated DVB-T RF modulator

6 I/O module slots for factory configuration

H.265/H.264 encoder options

VBR and CBR support

MPTS/SPTS outputs over UDP/RTP

DVB PSI/SI editing and PID remapping

Dual hot-swappable power supplies

Management via front panel and http interface

### Chassis Specification

TS Processing	Standart	IEEE 802.3, 1000 Base-T, Full Duplex
Maximum bitrate	Data	800 Mbit/s
Control	Remux	UDP/RTP, SPTS/MPTS x 32
PSI/SI Editing	PSI/SI Editing	ICMP, ARP, IGMP V2, IGMP V3
		4 x TS
		Generate, NIT, LCN Insert

Front Panel	TS/IP	2 x RJ45(GbE), 1000 Base-T
Control	Control	RJ45, 10/100/1000 Base-T
USB	USB	USB (upgrade), Mini USB (Debug)
Display	Display	11 x LED
Keypad	Keypad	Yes

Rear Panel	Slots	6 (Factory option)
RF	RF	Femal, 75Ω (Factory option)

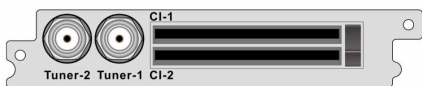
Physical	Power Supply	100 ~ 240V AC 50/60Hz
	Operating temperature	0 ~ 45°C
	Storage temperature	-10 ~ 60°C
	Operating Humidity	10 ~ 90%, (Non-condensed)
	Dimension	487 x 445 x 44mm

### Module options

Type	Model	Description
Receiver	OMCP-1000DS2 OMCP-1000DT2	2-Way DVB-S2 receiver with 2 CI slots 2-Way DVB-T/T2/C receiver with 2 CI slots
Encoder	OMCP-1000EH4 OMCP-1000EV8	4-Way HDMI H.264/H.265 Encoder 8-Way CVBS H.264 Encoder
Protocol Converter	OMCP-1000PC	UDP, SRT, WebRTC converter
Modulator	OMCP-1000TM2	2-Way DVB-T Modulator

### OMCP-1000TM2 2-Chaneel DVB-T Integrated Modulator

Standard	DVB-T COFDM	Guard Interval	1/4,1/8,1/16,1/32
RF output range	100~862MHz, step by 250kHz	Code Rate	1/2,2/3,3/4,5/6,7/8
Modulation Mode	QPSK/16QAM/64QAM	MER	≥38dB
Bandwidth	6/7/8MHz	Spurious rejection	50dB (typ.)
FFT Mode	2K/4K/8K	Standard	DVB-T COFDM



## OMCP-1000DS2 2-Channel DVB-S/S2/S2X Receiver

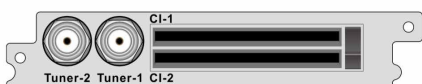
## Module Specifications

### Tuner

RF Input	DVB-S/S2/S2X	Roll Off Factor	DVB-S QPSK: 0.35 DVB-S2 8PSK: 0.35, 0.25, 0.2 DVB-S2X: 0.35, 0.25, 0.2, 0.15, 0.1, 0.05
Type	F x 2, 75Ω	FEC Puncture Rate	DVB-S QPSK: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2X/S2: (64800 bits) FECFRAME
Input Frequency	950 ~ 2150MHz	LNB Polarity Voltage	0, 13V, 18V
Input Level	-65 dBm ~ -25dBm	LNB Band Selection	0/22kHz
Symbol Rate	DVB-S2X/S2 QPSK 8PSK: 1 ~ 60 MSps 16APSK: 1 ~ 58 MSps 32APSK: 1 ~ 55 MSps 64APSK: 1 ~ 34 MSps DVB-S QPSK: 1~54 MSps	DiSEqC	DiSEqC 2.0
		PLS	0 ~ 262141
		ISI	1 ~ 255

### TS Processing

TS Input	Tuner1, Tuner2	Common Interface	PCMCIA, DVB-CI x 2
TS Output	TS over IP	CI Monitor	Yes



## OMCP-1000DT2 2-Channel DVB-T2/T/C Receiver

### DVB-T2/T

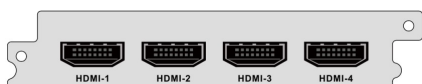
Input	DVB-T2/T
Type	F x 2, 75Ω
Standard	DVB-T2 v1.3.1
Input Frequency	42 ~ 1002 MHz
Input Level	-60dBm ~ -20dBm
Symbol Rate	1.8 ~ 7.2MSps
Constellation	DVB-T: QPSK, 16QAM, 64QAM DVB-T2: QPSK, 16QAM, 64QAM, 256QAM
Bandwidth	6MHz, 7MHz, 8MHz
FFT Mode	DVB-T: 2k, 8k DVB-T2: 1k, 2k, 4k, 8k, e8k, 16k, e16k, 32k, e32k
FEC Code Rate	DVB-T: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-T2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6
Guarding Interval	DVB-T: 1/32, 1/16, 1/8, 1/4 DVB-T2: 1/128, 1/32, 1/16, 19/256, 1/8, 19/128, 1/4
Input Return Loss	7dB (typ.)

### DVB-C

Type	F x 2, 75Ω
Input Frequency	42 ~ 1002 MHz
Input Level	-60dBm ~ -20dBm
Symbol Rate	1.8 ~ 7.2MSps
Constellation	16QAM, 32QAM, 64QAM, 128QAM, 256QAM
Bandwidth	6MHz, 7MHz, 8MHz
Input Return Loss	7dB

### TS Processing

TS Input	Tuner1, Tuner2
TS Output	TS over IP
Common Interface	PCMCIA, DVB-CI x 2
CI Monitor	Yes



## OMCP-1000EH4 4-Channel HD/SD H.265/H.264 Encoder

### Video Compression

Input	HDMI x 4		
Compression Standard	H.265 MP, H.264 BP&MP(Default)		
Sampling Format	YCbCr 4:2:0		
Video Resolution & Recommend Compression Bit Rate (H.265)	<table border="1"> <tr> <td>1080P (1920x1080) @50Hz,60Hz SMPT274M:3~7Mb/s 1080i(1920x1080i)@25Hz,29.97Hz SMPT274:3~7Mb/s</td> <td>720P(1280x720)@50Hz,59.94Hz SMPT296M: 3~7Mb/s 720P(1280x720)@25Hz,29.97Hz SMPT296M: 3~7Mb/s</td> </tr> </table>	1080P (1920x1080) @50Hz,60Hz SMPT274M:3~7Mb/s 1080i(1920x1080i)@25Hz,29.97Hz SMPT274:3~7Mb/s	720P(1280x720)@50Hz,59.94Hz SMPT296M: 3~7Mb/s 720P(1280x720)@25Hz,29.97Hz SMPT296M: 3~7Mb/s
1080P (1920x1080) @50Hz,60Hz SMPT274M:3~7Mb/s 1080i(1920x1080i)@25Hz,29.97Hz SMPT274:3~7Mb/s	720P(1280x720)@50Hz,59.94Hz SMPT296M: 3~7Mb/s 720P(1280x720)@25Hz,29.97Hz SMPT296M: 3~7Mb/s		
Video Resolution & Recommend Compression Bit Rate (H.264)	<table border="1"> <tr> <td>1080P (1920x1080) @50Hz,60Hz SMPT274M:4~8Mb/s 1080i(1920x1080i)@25Hz,29.97Hz SMPT274:4~8Mb/s</td> <td>720P(1280x720)@50Hz,59.94Hz SMPT296M: 4~8Mb/s 720P(1280x720)@25Hz,29.97Hz SMPT296M: 4~8Mb/s</td> </tr> </table>	1080P (1920x1080) @50Hz,60Hz SMPT274M:4~8Mb/s 1080i(1920x1080i)@25Hz,29.97Hz SMPT274:4~8Mb/s	720P(1280x720)@50Hz,59.94Hz SMPT296M: 4~8Mb/s 720P(1280x720)@25Hz,29.97Hz SMPT296M: 4~8Mb/s
1080P (1920x1080) @50Hz,60Hz SMPT274M:4~8Mb/s 1080i(1920x1080i)@25Hz,29.97Hz SMPT274:4~8Mb/s	720P(1280x720)@50Hz,59.94Hz SMPT296M: 4~8Mb/s 720P(1280x720)@25Hz,29.97Hz SMPT296M: 4~8Mb/s		

### Audio Compression

Coding Standard	MPEG1 Layer II MPEG-2/AAC/HE-AAC(V1,V2)
Sampling Rate	Passthrough
Recommend Compression Bit Rate	MPEG-2/4 AAC-LC: 32Kbps /48 Kbps /64 Kbps /128 Kbps /192 Kbps MPEG2/4 HE-AAC(V1,V2): 32 Kbps /48 Kbps /64 Kbps /128 Kbps /192 Kbps



## OMCP-1000PC IP Protocol Converter

Type	RJ45 10/100Base-T
Data Protocol	UDP, SRT, WebRTC
Max. Effective Bit Rate	70Mb/s
SRT	Caller, Listener, Rendezvous UDP, Multicast, IGMPv2