ECLIPSE HEVC Broadcast Transmitter

Based around DTC's industry leading 'Single Frame Latency' HEVC H.265 encoding technology, the Eclipse is a compact yet fully-featured outside broadcast transmitter.

Operating in DVB-T mode with Dual-Pedestal capability and 200mW output power, the Eclipse offers robust transmission in the most demanding of environments.

The Eclipse can transmit single 12G-SDI UHD video or four 3G-SDI HD video with embedded audio. It also offers dual high performance stereo analogue audio inputs with phantom power as well as the option of integrated UHF camera control.

FEATURES/BENEFITS

4K UHD H.265 HEVC encoding

HD-SDI capability

#Single frame latency

12G-SDI / *dual 6G-SDI / *quad 3G-SDI input

DVB-T with dual pedestal capability

*DVB-T2 support

*Mesh capable

*HD/SD video decoding in Mesh mode

Optional camera control receiver

2×100mW output provides transmit diversity

Multiple frequency band options

* Future development

Receiver dependent

DOMO
BROADCAST SYSTEMS

For the moments that matter

PRODUCT INFORMATION

Product Codes	
ECLIPSE-xxxxxx	Eclipse OB transmitter, no battery plates
ECLIPSE-AB-xxxxxx	Eclipse OB transmitter, AB battery mount
ECLIPSE-V-xxxxxx	Eclipse OB transmitter, V battery mount
ECLIPSE-CCCAM-xxxxxx	Eclipse OB transmitter with camera control, no battery plates
ECLIPSE-AB-CCCAM-xxxxxx	Eclipse OB transmitter with camera control, AB battery mount
ECLIPSE-V-CCCAM-xxxxxx	Eclipse OB transmitter with camera control, V battery mount

Note: Camera control options below. xxxxxx denotes frequency, see over

Camera Control Options	
ECLIPSE-VS-CCCAM-GV-UP	Grass Valley control software with interface cable
ECLIPSE-VS-CCCAM-HIT-UP	Hitachi control software with interface cable
ECLIPSE-VS-CCCAM-IKE-UP	Ikegami control software with interface cable
ECLIPSE-VS-CCCAM-PAN-UP	Panasonic control software with interface cable
ECLIPSE-VS-CCCAM-SON-UP	Sony control software with interface cable

Base Product Includes	
CA0579	Audio 5-way circular to XLR cable

CCCAM Product Includes	
AP008822	Telemetry antenna SMA, 433MHz
CA3919	CCCAM Ethernet cable

Accessory Options (sold separately)	
Antennas L/S/C-Band	Various N-type to match frequency
CA0340	RS-232 data 4-way circular to 9-way D-sub cable
CA0579	Additional audio 5-way circular to XLR cable
CA3421	Power 4-way circular cable to 15V 90W PSU
CA3348	HD-BNC right-angle to BNC cable
ECLIPSE-KIT-AB	AB mount battery plate kit
ECLIPSE-KIT-V	V mount battery plate kit

TECHNICAL SPECIFICATION

IO	
RF COFDM transceivers	N-type (f) x 2 (2×100mW)
RF COFDM transmitter (dual band variant only)	N-type (f) x 1 (200mW)
3G/12G-SDI bi-directional *(SD/6G-SDI)	HD-BNC (SDI1)
3G-SDI bi-directional *(SD/6G-SDI)	HD-BNC x 2 (SDI2/3))
3G-SDI input *(SD/6G-SDI)	HD-BNC (SDI4 in)
SD/HD/3G-SDI output *(6G-SDI)	HD-BNC (SDI4 out)
*SFP socket	SFP slot (12G-SDI MSA compliant)
*ASI input	HD-BNC
ASI output	HD-BNC
Serial data and power output	4-way circular
Power input	4-way circular
Balanced audio input	5-way circular x 2
Battery pass-through	V-Lock or Anton Bauer plates
Ethernet	RJ45
*USB 2.0 host	USB type-A

Camera Control Option	
Camera interface	14-way circular
Tally	5-way circular
RF input	SMA (403-473MHz)

DVB-T Modulation	
DVB-T bandwidth	8MHz, 7MHz and 6MHz modes
DVB-T dual pedestal	2×8MHz, 2×7MHz and 2×6MHz modes
DVB-T FEC	1/2, 2/3, 3/4, 5/6, 7/8
DVB-T constellation	QPSK, 16QAM, 64QAM
DVB-T guard interval	1/4, 1/8, 1/16, 1/32
DVB-T bitrates	3.732Mbps to 50Mbps

Input Video Format	
*SD input format	SMPTE-259M 720×576i 50Hz 720×480i 59Hz
HD input format	SMPTE-292M/424M
	1920×1080i 60/50Hz *59.94Hz
	1920×1080p 60/59.94/50/30/29.97/25/24/ 23.97Hz
	*(1920×1080psf 30/29.97/25/24/23.97Hz)
	1280×720p 60/59.94/50/30/29.97/25/24/ 23.97Hz

DOMO BROADCAST SYSTEMS

For the moments that matter

TECHNICAL SPECIFICATION cont

Ultra HD input format	SMPTE ST-2081/2082 3840×2160p 60/50Hz *(59.94/30/29.94/25/24/23.97Hz)

Encoder/Decoder

HEVC compression	HEVC/H.265/MPEG-H Part 2 *8-bit or 10-bit, *4:2:0 or 4:2:2
*H.264 compression	AVC/H.264/MPEG-4 Part 10

Audio

Analogue audio input	Two balanced analogue stereo pairs from -60dBu to +18dBu
Analogue phantom power	12V/48V
Digital audio input	1.5G/3G/12G-SDI de-embedding *(SD/6G-SDI)
Sample rate	48kHz
Coding modes	Up to eight channels (2-pairs) LPCM 16-bit *(20/24-bit) *AAC MP1 layer 1/2

Other

*RS232 data input	1k2 to 115k2, 7/8 bit, no/odd/even parity
Control panel	Built-in OLED with six buttons

*Encryption

Standard	ABS 32-bit
Licensed	AES 128/256-bit (subject to export control)

Power

DC input	9.2V to 17.8V reverse polarity protected
Power consumption	Less than 25W typ. @100mW RF power with 4K video

Environment

Temperature range	-10°C to +50°C
Humidity	Less than 85% non-condensing

Physical

Dimensions	L 181mm (165mm excluding connectors) W 110mm D 46mm (without battery plates) or D 85mm (with V-Lock plates) or D 77mm (with Anton Bauer plates)
Dimensions (dual band)	L 193mm (177mm excluding connectors) W 115mm D 46mm (without battery plates) or D 85mm (with V-Lock plates) or D 77mm (with Anton Bauer plates)
Weight	1.4kg (approx.)

Frequency

114150	1.14-1.50GHz
167235	1.67-2.35GHz
198270	1.98-2.70GHz
440500	4.40-5.00GHz
550600	5.50-6.00GHz
198750D	1.98-2.70GHz + **6.40-7.50GHz

*** COFDM TX only*

Software License Code

SILVER (included)	DVB-T Modulation, Streaming, HD H.265 Encoder
ECLIPSE-GOLD	4K UHD Encoder
*ECLIPSE-PLATINUM	Quad Video
*SDRAPP-MESH	SDR Application IP MESH
*AES128TX	AES 128-Bit Encryption
*AES256TX	AES 256-Bit and *AES 128-Bit Encryption

** Future development*