DTC

SOL7OBTX
SOLO7 Outside Broadcast Transmitter

Overview:

A compact and feature-rich COFDM digital video transmitter, specifically designed for high quality wireless link applications. With proven Domo COFDM and H.264 encoder technology at its core enabling High Definition images the small size and ultra low power consumption give maximum operational performance. Designed to offer maximum flexibility, the unit has a variety of video input options including composite, 3G-SDI and HDMI plus true balanced audio.

The transmitter has an integrated control panel with sunlight-readable OLED display covering all major functions and has 16 user-defined presets. A wide range of swappable frequency bands are available from 200MHz to 8.9GHz. Integrated UHF band Camera Control is available as an option.

Features and Benefits:

Ultra-low latency High Profile H.264 SD and HD encoding

Video formats up to 1080p60 and optional 4:2:2 Chroma sampling

Industry standard DVB-T modulation for interoperability with existing systems

Domo Broadcast UMVL modulation for enhanced high frequency / high speed performance

Controlled via USB or RS-232, and integrated sunlight-readable OLED display

Designed for sports & events coverage, newsgathering and wireless studio camera applications

Integrated camera control option with wide range of supported manufactures

User swappable RF modules and battery plate options

Very low power consumption for extended field performance: typically 10.0W

Weighs between just 520g and 870g

Product Information:

Product Includes

CA0002	12V DC Power lead Lemo-wire 3m
CA0343	USB Control Cable
CA0579	XLR Audio Input Cable
SA3688	OBTX Support USB Stick

CCCAM Expansion Includes

AP008822	1/4 Wave Antenna SMA 433MHz

CCCAM Expansion Requires

OBTX-CCCAM-ENABLE	Enable Camera control RX upgrade
OBTX-CCCAM-xUP	At least one control Protocol and cable

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Accessory Options (sold separately)

CA3122	Composite video input cable
CA3232	Lemo to 9-way D-sub (RS232 data) cable
OBTX-V-OEM	Additional V-Mount battery plates
OBTX-AB-OEM	Additional Anton Bauer battery plates
OBTX-PAG-OEM	Additional PAG battery plates
OBTX-xxxxxx-OEM	Additional RF module
OBTX-CCCAM-RMA	Factory fit Camera Control RX upgrade
OBTX-CCCAM-SUP	Sony control protocol and cable
OBTX-CCCAM-PUP	Panasonic control protocol and cable
OBTX-CCCAM-TUP	Grass Valley control protocol and cable
OBTX-CCCAM-IUP	Ikegami control protocol and cable
OBTX-CCCAM-HUP	Hitachi control protocol and cable
OBTX-CCCAM-CAMPAC	Multiple control protocol and cable bundle

Related Documents

100145	SOLO7 User Guide
MW3286	OBTX RF Module Assembly Guide
MW3308	OBTX V-Mount Battery Plate Assembly Guide
MW3285	OBTX AB-Mount Battery Plate Assembly Guide
MW3309	OBTX PAG-Mount Battery Plate Assembly Guide

Technical Specification:

IO

HDMI	HDMI type A
SD/HD/3G-SDI	BNC
ASI input	DIN 1.0/2.3
ASI output	DIN 1.0/2.3
Composite/S-Video/RS232	7-way 0B Lemo
Balanced stereo audio	5-way 0B Lemo (CA0579 2 x XLR3)
USB control	6-way 0B Lemo (CA0343 type-A USB)
External power	4-way 0B Lemo (CA0002 2 x banana)
External PA	4-way 00 Lemo
Battery pass-through	V/AB/PAG plates (optional)
RF output	N-type (100mW/50mW/10mW modes)

IO (with Camera Control)

Camera interface	10-way circular Hirose
Tally	5-way 0B Lemo
USB upgrade	Micro-B USB
RF input	SMA (403-473MHz)

DVB-T Modulation

DVB-T bandwidth	8MHz, 7MHz and 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 31.668Mbps

Narrowband/UMVL Modulation

NB bandwidth	2.5MHz, 1.25MHz and 625kHz modes
UMVL bandwidth	8MHz, 7MHz and 6MHz modes
NB/UMVL FEC	1/3, 2/3
NB/UMVL constellation	QPSK, 16QAM, BPSK, 8PSK
NB/UMVL guard interval	1/8, 1/16
NB bitrates	144kbps to 4.879Mbps
UMVL bitrates	1.317kbps to 14.869Mbps

Camera Control Demodulation

CC bandwidth	12.5kHz, 20kHz and 25kHz modes
CC constellation	4PSK, GMSK
CC sensitivity	-114dBm @ 25kHz bandwidth -111dBm @ 12.5kHz bandwidth

Video

SD input format	PAL, NTSC (with or without pedestal) 720x576i 50Hz 720x480i 59Hz
HD input format	1920x1080i 60/59.94/50Hz 1920x1080p 30/29.97/25/24/23.97Hz 1920x1080psf 30/29.97/25/24/23.97Hz 1280x720p 60/59.94/50Hz
3G input format	1920x1080p 60/59.94/50Hz* (via 3G-SDI level A/B or HDMI)
H.264 compression	AVC/H.264/MPEG-4 Part 10 High profile level 4.0 4:2:0 or 4:2:2 (optional)
ASP compression	ASP/MPEG-4 part 2 with NB modulation and SD only
Coding options	Horizontal scaling of 3/4, 2/3, 1/2, 1/4 Vertical scaling of 1/2, 1/4 Sub-frame rate of 1/2, 1/4, 1/8, 1/24
Encoder delay	1s to 10ms (mode dependent)
Encoder bitrates	0.25Mbps to 32Mbps

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Technical Specification (con't):

Audio

Analogue audio input	Balanced analogue stereo pair +18dBu max input level (up to 63dB gain)
Analogue phantom power	Off, 12V or 48V selectable
Digital audio input	SD/HD/3G-SDI 2 digital stereo pairs HDMI 1 digital stereo pair
Sample rate	32kHz, 48kHz
Coding modes	4 channels stereo or mono MPEG Audio Layer 1 64-448kbps MPEG Audio Layer 2 32-384kbps

Other

RS232 data input	1k2 to 115k2, 7/8 bit, no/odd/even parity
Remote control	RS232 & USB control from PC GUI application or other device
Front panel	Built in FCON Field Controller

Encryption

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

Physical

Dimensions	L 170mm (142mm excluding connectors) W 97mm (94mm excluding connectors) H 35mm (without battery plates) or H 71mm (with V-lock or PAG plates) or H 62mm (with Anton Bauer plates)
Weight	520g to 870g depending on options

Power

DC input	9.2V to 17.8V reverse polarity protected
Power consumption	Typically 10.0W @ 100mW RF power with additional 2.0W for >6.0GHz Additional 0.5W for camera control

Environment

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

Frequency

100150	1.00-1.50GHz
198270	1.98-2.70GHz
300370	3.00-3.70GHz
440500	4.40-5.00GHz
550600	5.50-6.00GHz
640700	6.40-7.00GHz
700750	7.00-7.50GHz
810890	8.10-8.90GHz

Software License Code

Silver (included)	DVB-T, Ultra Mobile Video Link (UMVL), MPEG-4 H.264 (SD)
Gold	Silver plus MPEG-4 H.264 (HD)
Platinum	Gold plus MPEG-4 H.264 (4:2:2)
Film Assist	Only Narrowband 2.5MHz, MPEG-4 H.264 (HD)
AES128TX	AES 128 bit encryption
AES256TX	AES 256 bit encryption

* 3G-SDI support subject to maximum encoder resolution limitations in initial software release of 960x1080p60/59.94 or 1280x1080p50

Export of encrypted products is subject to United Kingdom regulatory export controls.