

# SOL7TX

## SOL07 Transmitter

**Overview:**

A miniature feature-rich COFDM digital video transmitter designed specifically for situations when reliable operation and power consumption are critical. Offering several user-selectable modes allowing optimum selection of range and performance for flexibility in any environment. The SOL07 Transmitter is ideal for battery powered applications requiring long term deployment, unmanned aerial vehicles, body worn use or concealments.

The SOL07 Transmitter is highly power efficient drawing typically 3.7W and weighing only 116g making it ideal for indoor or outdoor deployments, used as a body worn application or mounted on any kind of vehicle, manned or unmanned, in any overt or covert application. Now even more capable with additional digital input for either SD-SDI cameras, or ASI for remux/relay applications.



**Features and Benefits:**

- Ultra-low latency High Profile H.264 SD encoding
- Our smallest and lowest power ASI transmitter solution
- Industry standard DVB-T modulation for interoperability with existing systems
- Domo Narrowband modulation for extended range, robustness and reduced channel requirements
- Controlled via configuration button, USB or RS-232, can be configured by DTC Field Controller
- Ideal for unmanned vehicles, covert body worn and concealment applications
- Revised packaging providing greater thermal dissipation with user serviceable connectors
- Exceptionally low power consumption: typically 3.7W
- Small size: 65mm x 65mm x 18mm
- Weighs only 116g

**Product Information:**

**Product Includes:**

AP007377	Micro-B USB cable
CA0002	12V DC power lead Lemo-wire 3m
CA3186	Hirose power, video and audio cable
SA4066	SOL7TX support USB stick

**Accessory Options (sold separately):**

CA0610	Hirose power and control cable
CA0611	Hirose power and video cable
CA0612	Hirose power, video, audio and PA cable
CA3148	MCX 75Ω to BNC female cable
NTXBAT	NTX 7.4V battery pack (2250mAh)
NTXBATCH	NTX battery charger (multi region)
SOL7NAMP1W	1W Nano PA, 3-5W power consumption

**Related Documents:**

100145	SOL07 Transmitter Family User Guide
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### Technical Specification:

#### IO

SD-SDI/ASI	MCX (female 75Ω)
Composite/S-Video	16-way Hirose 3500 series
Stereo audio	16-way Hirose 3500 series
Power	16-way Hirose 3500 series
Chaining/GPIO	16-way Hirose 3500 series
RS232 data	16-way Hirose 3500 series
RS232 control	16-way Hirose 3500 series
USB control	Micro-B USB
RF output	SMA (100mW/50mW/10mW modes)

#### 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

#### Video

Input format	PAL, NTSC (with or without pedestal) 720x576i 50Hz 720x480i 59Hz
H.264 compression	AVC/H.264/MPEG-4 Part 10 High profile level 4.0
ASP compression	ASP/MPEG-4 Part 2 with NB modulation 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 40ms (mode dependant)
Encoder bitrates	0.25Mbps to 32Mbps

#### Audio

Analogue audio input	Analogue stereo pair or differential mono +4dBu max input level (up to 63dB gain)
Analogue microphone bias	Off or 2V selectable
Digital audio input	SD-SDI digital stereo pair
Sample rate	32kHz, 48kHz
Coding modes	2 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	Configuration button and dual colour status LED
Chaining	2-wire input or output transport stream interface

#### Encryption

Type	ABS 32-bit as standard
Licensable	AES 128/256-bit (subject to export control)

#### Physical

Dimensions	L 64mm, W 65mm, H 18mm
Weight	116g

#### Power

DC input	5.9V to 17.8V reverse polarity protected
Power consumption	Typically 3.7W @ 100mW RF power with additional 2.0W for >6.0GHz down to 3.0W @ 10mW RF power
Consumption varies depending on RF power, temperature and frequency variant	

#### Environment

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

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### Technical Specification (con't):

#### Frequency

020030	200-300MHz
030047	300-470MHz
045060	450-600MHz
100150	1.00-1.50GHz
165240	1.65-2.40GHz
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
Gold	Silver plus MPEG-4 ASP, Narrowbands 1.25MHz & 2.5MHz
Platinum	Gold plus Ultra Extreme Narrowband 625kHz
AES128TX	AES 128-Bit Encryption License
AES256TX	AES 256-Bit Encryption License

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

For further information contact your Sales Account Manager, one of our Regional Sales Offices, or email [solent.enquiries@domotactical.com](mailto:solent.enquiries@domotactical.com)

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