

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 75 Ω) |
| 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

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