

SOL7NTX

SOLO7 Nano Transmitter

Overview:

An ultra-miniature COFDM digital video transmitter designed specifically for when size, weight and power consumption are critical. Offering several user-selectable modes that trade off image quality against range, the SOLO7 Nano Transmitter is ideal for battery powered applications requiring long term deployment, small unmanned aerial vehicles, body worn use or concealments.



Features and Benefits:

Ultra-low latency High Profile H.264 SD encoding

Industry standard DVB-T modulation for interoperability with existing systems

Domo Narrowband modulation for extended range, robustness and reduced channel requirements

Controlled via USB or RS-232, can be configured by DTC Field Controller

Ideal for small unmanned vehicles, covert body worn and concealment applications

Compact packaging with ultra-miniature connectors

Exceptionally low power consumption: typically 3.7W

Exceptionally small size: 58mm x 36mm x 16.5mm

Weighs only 60g

Product Information:

Product Includes:

| | |
|----------|-----------------------------------|
| AP007377 | Micro-B USB cable |
| CA0002 | 12V DC power lead Lemo-wire 3m |
| CA2253 | NTX DC power/control cable |
| CA2254 | NTX audio/video/data cable |
| AP008574 | DTC Device Controller (USB stick) |

Accessory Options (sold separately):

| | |
|------------|------------------------------------|
| CA0001 | RS232 cable Lemo to D-sub9 |
| CA2250 | NTX DC power cable |
| CA2370 | NTX DC power/FCON cable |
| CA2298 | NTX 9-way breakout cable |
| CA2485 | NTX 6-way breakout cable |
| NTXBAT | NTX 7.4V battery pack (2250mAh) |
| NTXBATCH | NTX battery charger (multi region) |
| SOL7NAMP1W | 1W Nano PA, 3-5W power consumption |

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Technical Specification:

IO

| | |
|-----------------|---------------------------------------|
| Composite video | 9-way Tri-Lobe (CA2254 yellow RCA) |
| Stereo audio | 9-way Tri-Lobe (CA2254 white/red RCA) |
| RS232 data | 9-way Tri-Lobe (CA2254 3-pin OB Lemo) |
| Camera power | 9-way Tri-Lobe (requires CA2298) |
| S-Video | 9-way Tri-Lobe (requires CA2298) |
| Power | 6-way Circular (CA2253 4-pin OB Lemo) |
| RS232 control | 6-way Circular (CA2253 3-pin OB Lemo) |
| 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) |
| 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

| | |
|--------------------------|---|
| Audio input | Analogue stereo pair or differential mono +4dBu max input level (up to 63dB gain) |
| Analogue microphone bias | Off or 2V selectable |
| 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 | None, use FCON field controller |

Encryption

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

Physical

| | |
|------------|--|
| Dimensions | L 58mm, W 36mm, H 16.5mm (L 66mm including mounting lugs) |
| Weight | 60g |

Power

| | |
|-------------------|---|
| DC input | 5.9V to 17.8V reverse polarity protected |
| Power consumption | Typically 3.7W @ 100mW RF power 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 (cont.):

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 |

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 |
| AES256TX | AES 256-Bit Encryption |

Export of encrypted products is subject to 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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