

SOL7BNTX

SOL07 Broadcast Nano Transmitter

Overview:

The SOL07 Broadcast Nano Transmitter is a development of the original Nano now incorporating a control panel, robust broadcast standard connectors and forced cooling, providing much improved thermal performance. It enables production teams to offer viewers stunning high definition images using H.264 encoding with ultra-low latency, in situations not previously possible due to equipment size and battery run-time constraints.

The small size and ultra-low power consumption make the Broadcast Nano Transmitter ideal for a range of uses from Point of View to body worn video applications. Whether it be live sports, live events, on-board motor sport applications or UAV drone installations, the Broadcast Nano provides true long range rugged HD broadcasting from these increasingly popular applications for the first time. Optional lightweight, low power consumption amplifiers are also available for even greater range capability.



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

Balanced stereo audio input with switchable phantom power

Industry standard DVB-T modulation for interoperability with existing systems

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

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

Ideal for unmanned vehicles, point of view, on-board camera and video assist applications

Very low power consumption: typically 5.0 to 8.0W

Exceptionally small size: 76mm x 60mm x 23mm

Weighs only 139g

Product Information:

Product Includes

| | |
|----------|---|
| AP007377 | Micro-B USB Cable |
| CA0002 | 12V DC Power lead Lemo-wire 3m |
| CA0579 | XLR Audio Input Cable |
| CA2152 | Type D Male to Type A Female HDMI Cable |
| CA2396 | DIN 1.0/2.3 to BNC Female Cable |
| SA4068 | SOL7BNTX Support USB Stick |

Accessory Options (sold separately)

| | |
|------------|------------------------------------|
| AP008399 | Type D Micro HDMI Male 30cm Cable |
| NTXBAT | NTX 7.4V Battery Pack (2250mAh) |
| NTXBATCH | NTX Battery Charger (multi region) |
| SOL7NAMP1W | 1W Nano PA, 3-5W Power Consumption |
| SA4194 | SOL7BNTX Hot Shoe Mounting |

Related Documents

| | |
|--------|------------------|
| 100145 | SOL07 User Guide |
|--------|------------------|

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Technical Specification:

IO

| | |
|-----------------------|----------------------------------|
| HDMI | Micro HDMI Type D |
| SD/HD/3G-SDI / ASI | DIN 1.0/2.3 (or BNC via CA2396) |
| Balanced Stereo Audio | 5-way 0B Lemo (CA0579 2x XLR3) |
| Power | 4-way 0B Lemo (CA0002 2x Banana) |
| 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

| | |
|-------------------|---|
| SD Input Format | 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 dependant) |
| Encoder Bitrates | 0.25Mbps to 32Mbps |

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

| | |
|------------------|--|
| Remote Control | USB Control from PC GUI Application or other device |
| Wireless Control | DTC Application (Windows/iOS/Android) via Bluetooth BLE4 |
| Front Panel | Integrated |

Encryption

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

Physical

| | |
|------------|------------------------|
| Dimensions | L 76mm, W 60mm, H 23mm |
| Weight | 139g |

Power

| | |
|-------------------|---|
| DC Input | 5.9V to 17.0V reverse polarity protected |
| Power Consumption | Typically 5.0W to 8.0W @ 100mW RF power with additional 2.0W for >6.0GHz |

Consumption varies depending on RF power, temperature and frequency variant

Environment

| | |
|-------------------|------------------------------|
| Temperature Range | -10 to +50 °C |
| Humidity | Less than 85% Non-Condensing |
| Cooling | Internal fan |

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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 (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 License |
| AES256TX | AES 256-bit Encryption License |

* 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.

For further information contact your Sales Account Manager, one of our Regional Sales Offices, or email solent.enquiries@domotactical.com

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