

SOL7NTX

SOL07 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 SOL07 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-LemoDsub9
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
AES128TX	AES 128-bit Encryption License
AES256TX	AES 256-bit Encryption License

Related Documents:

100145	SOL07 User Guide
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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)
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 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

Software License Code Includes

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

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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