



Product Description

ANT-1776ZB is a powerful board based H.265 or H.264 tiny form factor miniature sized encoder which has been designed to encode and be compatible with **Sony Zoom Blocks FCB-EV7520, FCB-EV9520L and FCB-EV9500, Tenum 640 & FLIR Boson and Lepton cameras. Additional USB cameras x2 plus network camera transcode, GiGe , 0082**

You can encode input combinations of 2 x LVDS , 1 x LVDS + 1 CVBS , 1 x LVDS + CVBS + 2x USB 3.0. Also inputs via ethernet of GiGe cameras and MIL Spec 0082 input/output.

The ANT-1776ZB has a HDMI output so can either be used as a local output for video display or as a dedicated decoder. When paired with another ANT-1776ZB can deliver low latency hardware to hardware of apx 150ms. Or you can use our low latency decode software/player for Windows, Linux and Android to achieve 100mS.

The ANT-1776ZB streams over wired and wireless networks, supporting Unicast, Multicast, Broadcast in UDP, RTP, RTSP . Custom VPN installation is possible .

This unit is designed to function at extreme tempratures as has been tested to -40C + 85C (Tested to MIL-STD-810G Standard).

Designed to be integrated or into an enclosure as it is a base board product, example applications for this type of product would be UAV, unmanned vehicles , drone payloads etc.

Key Features

- Sony Zoom Block Encoder
- Flir Lepton & Boson Encoder
- Tenum 640 Encoder
- LVDS, USB, SPI & CVBS
- IP transcode, GiGe cameras
- MIL 0082 Encode Decode
- Up to 3 x HDP60 Inputs
- NDAA Approved
- H.265 Low Bit Rate
- 100ms Low Latency
- Micro Size

ANT-1776ZB

PRODUCT TECHNICAL SPECIFICATION



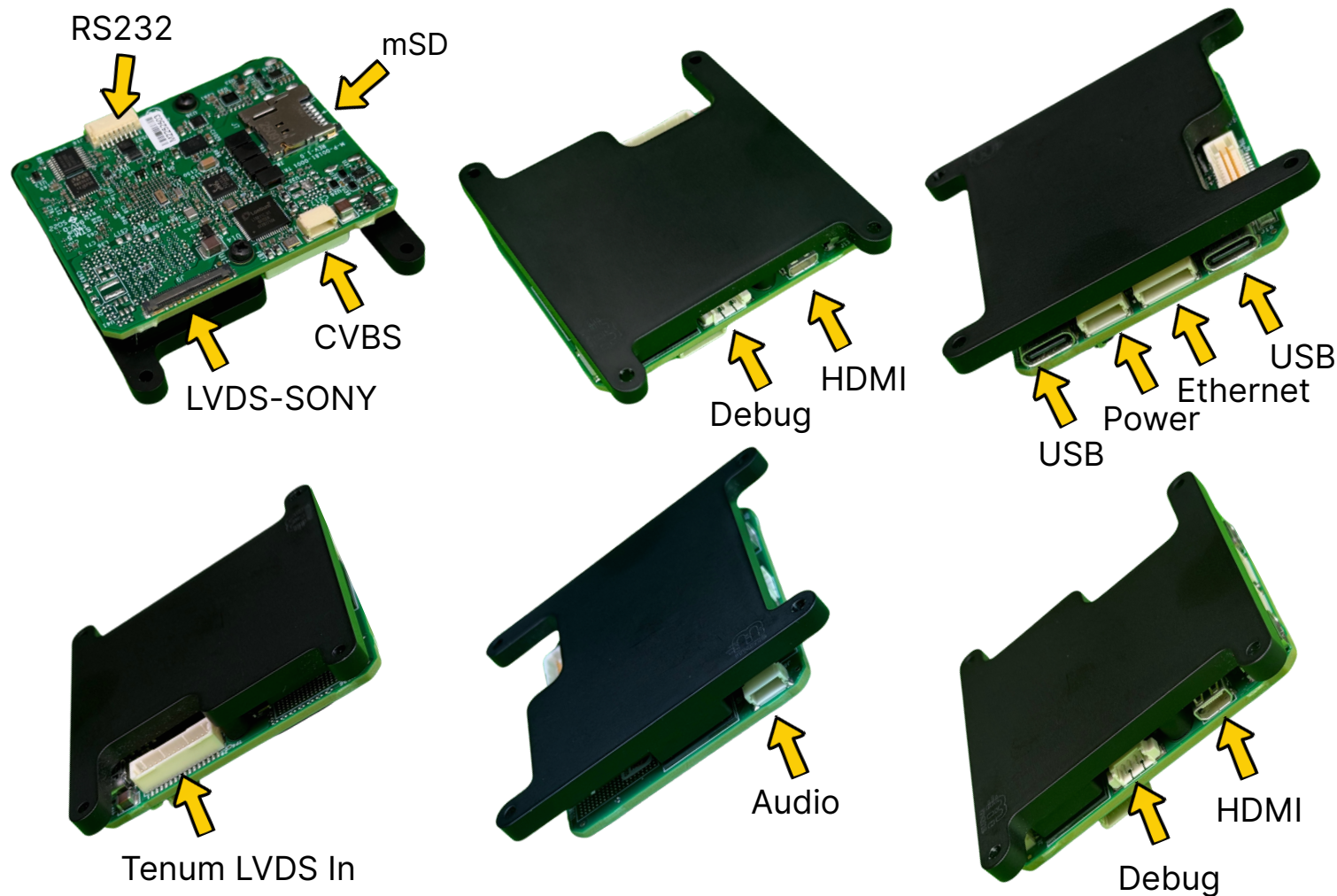
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System	Mode	Encoder or Decoder
	System Standards	RTSP, MPEG-TS, Unicast, Multicast, RTP, RTMP
	System Latency	<150mS (system dependant) apx 100ms with Neptune Player or App
Video	Compression	H.264, H.265
	Profile	Baseline
	Frame Rate	1-60 fps
	Bit Rate	10Kbps to 20Mbps
	Mode	GOP
	Bit Rate Control	CBR, VBR
	Min Resolution	720 x 576 CVBS (USB inputs support differing resolutions)
	Max Resolution	1920 x 1080 P60 (LVDS and USB inputs)
	Number of Streams	8 Mux settings (streams) can be configured for any video source as well as same source
	Inputs	LVDS (Sony block) CVBS PAL NTSC, USB 3.0 x 2 MIL Spec 0082 I/O, GiGe encode, IP camera transcode
	Input Formats	Progressive YUV formats via LVDS USB and CVBS
	Input Combinations	Any LVDS CVBS USB 3.0 x2 (Max 4 video interfaces at the same time) plus IP camera transcode GiGe cameras
	Outputs	micro HDMI Output (decoder mode only)
	Output Combinations	IP (encoder mode) / HDMI (decoder mode)
	On Screen Display	English
Audio	Mode	Audio via a microphone input compressed by an audio codec and streamed with Video
	Compression	G.711, MP3, OPUS
	Sample Rate	8kbps, 44.1kbps, 48kbps CODEC dependent
	Bit Rate	CODEC dependent
	Streaming	Audio embedded in MPEG-TS and RTSP Video+Audio
	Inputs	microphone level input plus line level
	Outputs	Line out, speaker(decode)
Network	Interface	100-1000 Ethernet RJ45
	Protocols	IPv4, TCP, UDP, IGMP(Multicast), HTTP, RTSP, DNS ,NTP
	Security	VPN can be installed
	Configuration	SDK, WEB
Data	Type	2 Way UDP to serial support
	Interface	RS232 (RS485 with external converter)
	Protocol	ONVIF to Pelco D via RS485 (ext 232-485 converter), UART for Sony Zoom in LVDS wiring
	Alarm	n/a
	Sensor	n/a
Event	Sources	n/a
	Actions	n/a
Power	Supply	5v ±0.1v DC OR 12v ±0.1v DC camera dependent
	Adapter input volts	N/A
	Adapter Output Voltage	N/A
	Consumption	13W Max (LVDS + USB / camera dependent)
Recording	Edge Storage	32GB EMMC + USB OTG
Temperature	Operating Range	-40C + 85C (Tested to MIL-STD-810G Standard)
Physical	Dimensions	58.4 x 48.3 x 9.3mm
	Weight	22g
	Housing	PCB Only
General	Certifications	RoHS
	Software	IP Finder + Player (video decode and display)
	Warranty	12 Months
	Remote	N/A
	Reset	Web interface or IP finder
	Set Up	Web interface or API
Control & Set Up	Control	Web interface or API
	Upgrade	Firmware Upgrade via webpage or IP finder tool
	Contents	PCB, Chosen Input Boards and Optional Leads

ANT-1776ZB

FIRMWARE FEATURES

Feature	Description
Selective Recording & Recording Segmentation	Automatically split recorded video into manageable file segments, making it quick and easy to locate footage by date, time or event without searching through large continuous recordings.
Dynamic Encoding & Adaptive Bit Rate	Configure a predefined profile table that allows the encoder to automatically adjust video resolution and bitrate in real time based on radio signal strength (RSSI). Working alongside compatible radios, this ensures the most stable video possible as network conditions change. Video settings can also be adjusted manually on the fly without interrupting the stream.
ONVIF Discovery	Enables automatic ONVIF discovery and integration with leading Video Management Systems (VMS), simplifying installation and deployment within security and surveillance environments.
AES Encrypted Recording	Securely record video using AES encryption, protecting sensitive footage from unauthorised access.
Text & Graphics Overlay	Overlay custom text, timestamps, mission data, graphics or other information onto live or recorded video.
NTP Time Synchronisation	Synchronise system time across multiple devices using Network Time Protocol (NTP).
Raw Video Recording via USB-C	Capture uncompressed RAW video directly to USB-C storage for AI training and post-processing.
IP Transcoding	Decode incoming IP streams and re-encode them into RTSP for interoperability.
Local HDMI Decode Output	Decode IP video streams locally and output directly via HDMI.
00.82 Encoding & Transcoding	Encode into the 00.82 protocol or transcode existing 00.82 streams into H.264/H.265 RTSP.
WebRTC	Ultra-low latency browser-based video streaming without plugins.
AI Selective Streaming (Hailo-8 only)	AI-powered object-focused streaming to reduce bandwidth while maintaining situational awareness.
Multi-Stream Video Processing	Simultaneously encode, decode and stream multiple video channels.
Low Latency Streaming	Optimised H.264/H.265 pipeline for real-time video transmission.
VPN Integration	Improves resilience over unreliable wireless and RF links. Uploading a VPN is possible but not part of the standard firmware.
Metadata & Telemetry Support	Supports transport of GPS, telemetry, sensor data and other metadata alongside video.
Local Recording & Playback	Simultaneously stream and locally record video, audio and metadata.
Multiple Video Input Support	Supports HDMI, HD-SDI, MIPI, LVDS, CVBS and USB camera inputs depending on model.
RS485 Pelco D output	ONVIF to Pelco D via RS232 on the unit supported needs external RS232 to 485 converter.
ONVIF control of Sony Zoom Block	Control of Zoom and other zoom block features via ONVIF



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