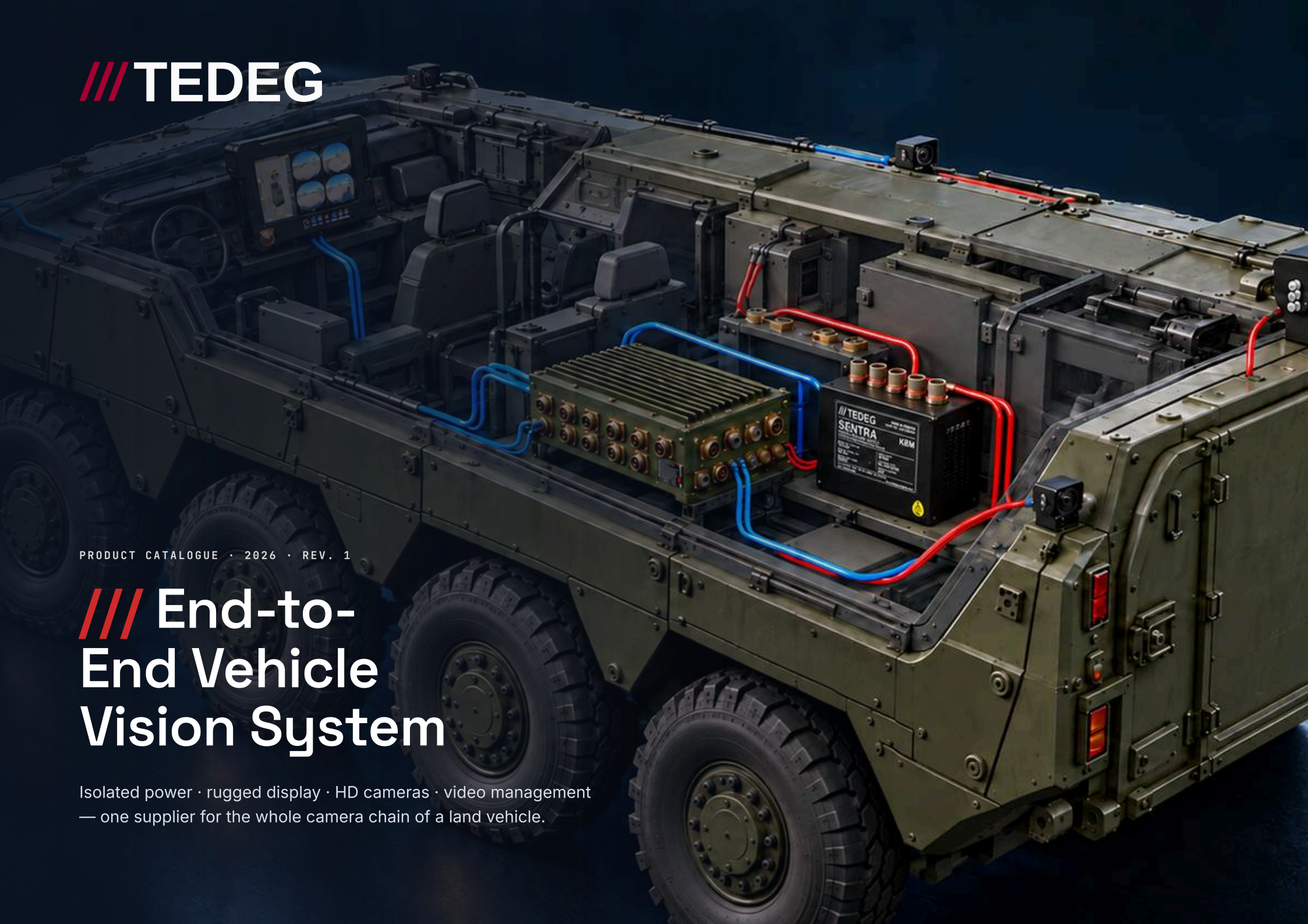




TEDEG

PRODUCT CATALOGUE · 2026 · REV. 1

End-to-End Vehicle Vision System

Isolated power · rugged display · HD cameras · video management
— one supplier for the whole camera chain of a land vehicle.



SENTRA KBM

Isolated power distribution

TDG-VMS-111

Video management system

TDG-DSP-101

Rugged 10.1" vehicle display

TDG-CAM-201...206

HD vehicle cameras

TEDEG

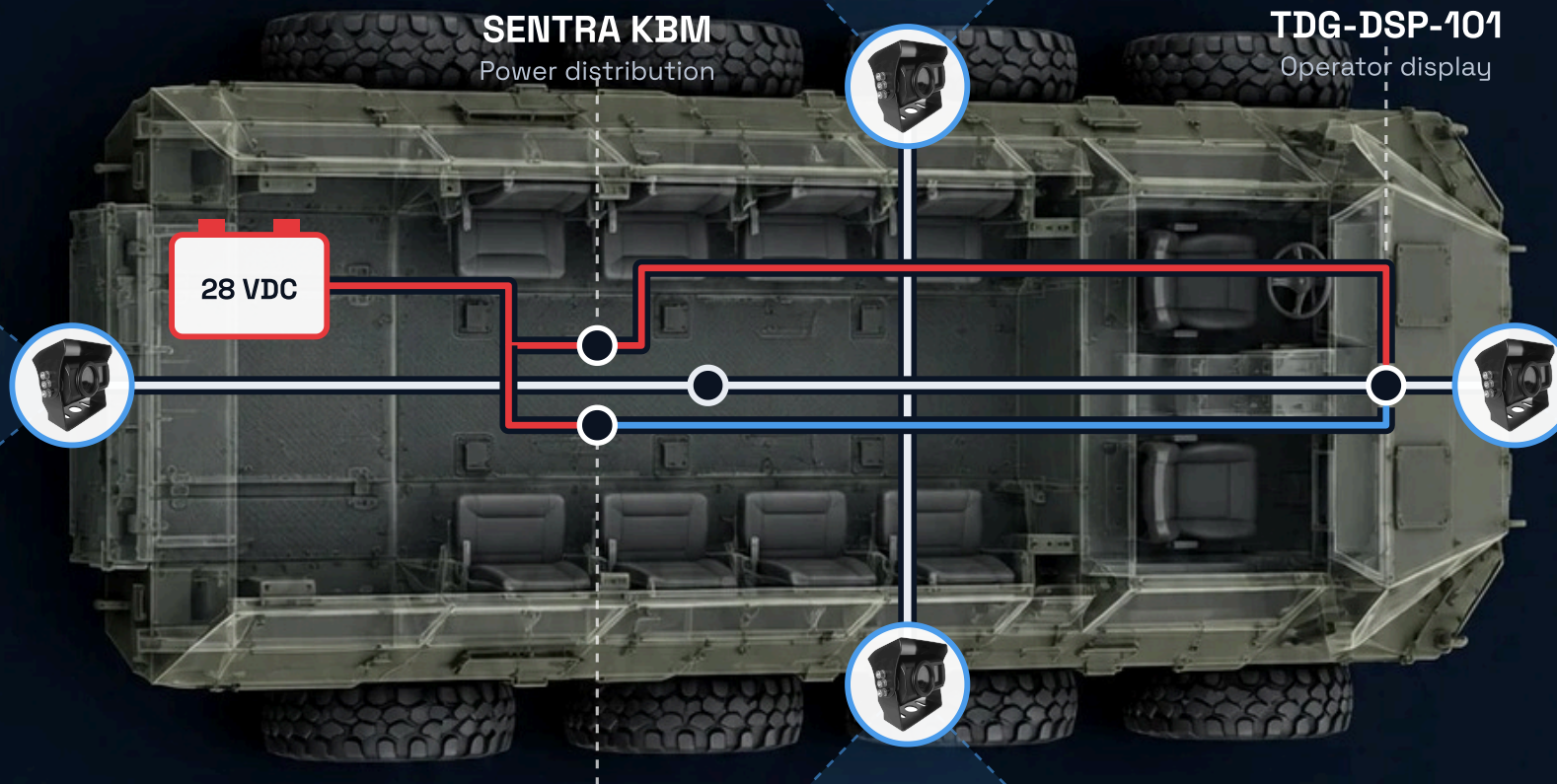
Power in the centre,
video in the centre



SENTRA KBM
Power distribution



TDG-DSP-101
Operator display



28 VDC

TDG-CAM-20x
HD cameras



TDG-VMS-111
Video management

Power Video Camera harness

Illustrative image · 03 / 17



Before: separate boxes, many cables



After: SENTRA KBM + TDG-VMS-111



Without 360°: blind spots



With TDG-VMS-111: all-round view



Everything on one screen

360°

bird's-eye view from 4 cameras

10.1"

rugged display · PCAP touch

< 80 ms

camera to screen

Built for high-pressure washdown

IP69K

-32 ... +70 °C



Rain



Dust

Any weather. Same system.



Snow



Mud



**One system, configured
for each platform**



Starlight rear-view camera

0.1 mLux

colour in near darkness · TDG-CAM-204



01 · POWER

SENTRA KBM — Camera Power Distribution Module

One compact unit supplies the vehicle’s multi-camera system, operator display, mission computer and seat module over galvanically isolated outputs, and carries the video lines on the same harness. Fewer power sources, fewer cables, fewer failure points.

- /// Input: 28 VDC, MIL-STD-1275E, reverse-polarity protected
- /// Camera connector carries power, video, audio and IR control
- /// COTS design for rapid procurement; service life ≥ 30 years with periodic maintenance
- /// Aluminium enclosure with chromate coating, MIL-STD-130L marking

Part number	TDG-064
Input	28 VDC · MIL-STD-1275E
Camera outputs	Min. 11 × 12 VDC, isolated
Computer output	24 VDC ±0.2 V · min. 200 W
Display output	24 VDC ±0.2 V · isolated · min. 25 W
Seat module output	24 VDC ±0.2 V · isolated
Video lines	Single harness · min. 12 × 75 Ω
Protection	≥ IP55
Operating temperature	−32 °C ... +55 °C
Connectors	MIL-DTL-38999
Standards	MIL-STD-1275E · 810G · 461G



02 · VIDEO

TDG-VMS-111 — Video Management System

A real-time embedded video processor, not a PC: first image in under 3 seconds after ignition, glass-to-glass latency below 80 ms, automatic view switching from reverse gear, indicators and speed. The stitched 360° bird's-eye view completes the driver's field of view during closed-hatch driving.

- /// 11 independent AHD / CVBS channels, auto-detected
- /// Real-time 360° view from 4 wide-angle cameras
- /// Two independent HDMI outputs for driver and commander
- /// Option -R: H.265 recording, 11 channels, removable SSD, AES-256 · Option -A: AI detection of personnel, vehicles, weapons

Part number	TDG-VMS-111
Camera inputs	11 · AHD 1080p/720p and CVBS
Camera supply	Isolated 12 VDC · 0.5 A per channel
Display outputs	2 × HDMI 1.4 · 1920 × 1200 @ 60 Hz
Latency / boot	< 80 ms · first image < 3 s
Vehicle interface	2 × CAN 2.0B (J1939) · 2 × RS-422/485 · 8 in · 4 out
Network	Gigabit Ethernet · RTSP / ONVIF Profile S
Supply	18–33 VDC · MIL-STD-1275E · ≤ 25 W base
Enclosure	Aluminium 6061-T6, fanless · IP67 · ≤ 4.5 kg
Operating temperature	–40 °C ... +70 °C

Rev. 01 preliminary design values.



03 · DISPLAY

TDG-DSP-101 — 10.1” Rugged Vehicle Display

The operator screen of the vehicle cameras: 1920 × 1200 WUXGA at 600 cd/m² behind 3 mm tempered anti-glare glass for direct-sunlight readability, 10-point PCAP touch that works with gloves, and a 9–36 VDC supply that connects directly to 12 / 24 VDC vehicle systems.

- 85° viewing angle in all directions, 900:1 contrast
- HDMI and USB on MIL-DTL-38999 type connectors; 2 × 2 W speakers
- OSD keypad on the front: source, menu, auto-adjust
- Reverse-polarity, over-voltage and transient protection

Part number	TDG-DSP-101
Screen	10.1" ADS TFT-LCD · 1920 × 1200 · 224 ppi
Brightness / contrast	600 cd/m ² (typ.) · 900:1
Cover glass	3 mm tempered · anti-glare
Touch	PCAP 10-point · USB HID · glove operation
Video input	HDMI (MIL-DTL-38999 type)
Supply	9–36 VDC · ≤ 20 W
Housing	Aluminium · IP65 front face
Operating temperature	–32 °C ... +55 °C

VARIANTS

- B Optical bonding
- N NVIS (MIL-STD-3009 Type I Class B)
- H 1,000 cd/m²
- V CVBS / DVI / VGA inputs

04 • CAMERAS

TDG-CAM — six HD vehicle cameras

All models are 1080P, 12 VDC, IP69K and withstand 5.9G vibration (CAM-204: 8G vibration / 100G shock). Choose by field of view, night performance and mounting space.

	MODEL	TYPE	FIELD OF VIEW	NIGHT VISION	SUPPLY	OPERATING TEMP.
	TDG-CAM-201	General-purpose exterior, mic	110° / 130°	Smart-IR 15 m	12 VDC · ≤ 220 mA	−32 ... +70 °C
	TDG-CAM-202	Dome, 6 IR LEDs, mic	150° / 170°	Smart-IR 8 m	12 VDC · ≤ 220 mA	−32 ... +70 °C
	TDG-CAM-203	Ultra-compact mini	170° (150° opt.)	—	12 VDC · ≤ 66 mA	−32 ... +70 °C
	TDG-CAM-204	VNIR starlight, AHD	120°	Colour at 0.1 mLux	12 VDC · ≈ 100 mA	−32 ... +70 °C
	TDG-CAM-205	Distortion-corrected wide angle	H 170° · V 100°	IR 8–10 m	12 VDC	−20 ... +70 °C
	TDG-CAM-206	Low-profile mini dome, flush mount	170°	—	12 VDC · ≤ 110 mA	−20 ... +70 °C

SELECTION

Which camera where

A starting point for platform design. Final selection is made with TEDEG engineering against your vehicle layout.



POSITION	RECOMMENDED	WHY
Rear view / reversing at night	TDG-CAM-204 · TDG-CAM-205	Starlight colour image to 0.1 mLux; or corrected 170° view with true object shape and distance
Driving, front and side blind spots	TDG-CAM-201	110° / 130° lens, Smart-IR range of 15 m
Crew compartment and cargo area	TDG-CAM-202 · TDG-CAM-206	Dome housings with 150°–170° coverage from one mounting point; CAM-206 mounts flush
Tight mounting spaces	TDG-CAM-203	Miniature housing, 170° lens, max. 66 mA
360° bird’s-eye view	Wide-angle models + TDG-VMS-111	Four cameras stitched in real time by the VMS

STANDARDS

Built for the vehicle, tested to military standards

ITEM	STANDARD / VALUE	APPLIES TO
Vehicle electrical system	MIL-STD-1275E (28 VDC)	SENTRA KBM · TDG-VMS-111
Environmental	MIL-STD-810G	KBM · VMS · DSP-101 (design basis)
EMI / EMC	MIL-STD-461G	KBM · VMS · DSP-101 (design basis)
Connectors	MIL-DTL-38999	KBM · VMS · DSP-101
Ingress protection	IP55 · IP65 · IP67 · IP69K	KBM · DSP-101 · VMS · cameras
Product marking	MIL-STD-130L	SENTRA KBM

MIL-STD references describe the design basis stated in each product datasheet. Test status and evidence are provided per product on request.

INTEGRATION

- /// Connector type, cable length and mounting bracket matched to the platform during the project
- /// Integration support and acceptance-test support from TEDEG engineering
- /// Datasheets in Turkish and English for every product; interface control document (ICD) for the VMS



NEXT STEP

**/// Tell us the platform.
We configure the chain.**

Send us the vehicle type, number of cameras and display positions, and the electrical architecture. We reply with a configuration proposal and the datasheets.

Specifications are product-datasheet values and may change without notice. This catalogue is not a contractual offer.

DATASHEETS & QUOTATION

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