

commsignia

ITS-OB4

Powerful V2X Onboard Unit



Product brief

The fourth generation of Commsignia's vehicular connectivity system offers superior performance coupled with V2X Software stack.

The unit provides low-cost and easy OEM / aftermarket integration, offering built in Tamper-proof Hardware Security Module, CAN, high range V2X radio and easy HMI integration.

By combining the benefits of automotive grade design, high performance application CPU and dual channel V2X radio performance, the ITS-OB4 offers a professional, complete and future proof solution.

- Improved connectivity (DSRC / ETSI-G5, C-V2X)
- Small form factor
- High precision positioning
- Intelligent power management
- Tamper proof and secure
- Rapid startup times
- Easy integration
- Audio and video notifications
- Reduced custom application development effort



Competitive features

- Dedicated next generation V2X chipsets
- Dual-channel operation
- Automotive grade design
- Extended radio coverage with a single unit
- Complete Real-Time V2X Stack (ETSI, IEEE, SAE, ISO)
- Available with Autotalks / Qualcomm 9150 V2X chipset
- Powerful application CPU
- Fine-tuned system startup process



Support and maintenance

- Linux Software Development Kit for application development
- Standard and Premium technical customer support
- User's & Developer's guides
- Available APIs: native C / remote C
- Sample applications
- Regular Software Upgrades



Easy integration

- CAN and other sensor inputs (CAN and GPIO connections)
- High frequency GNSS, high precision positioning
- Flexible Management Tool
- Statistics and Reports
- Video / Audio interface



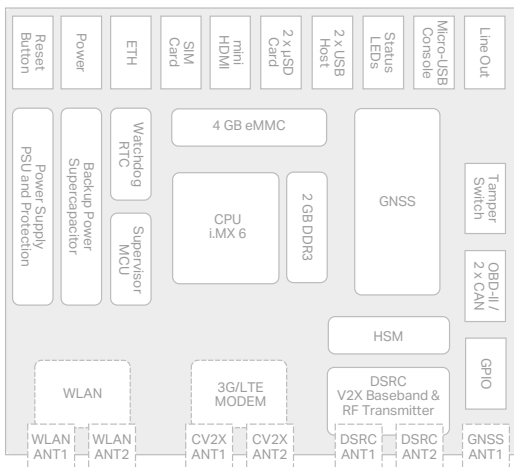
Complete security and supervision

- USDOT SCMS / EU PKI compatible
- Support for future security upgrade
- Tamper protected, supervised system
- Cryptographic Acceleration for V2X
- Tamper proof certificate storage (HSM)



V2X software

V2X communication solutions are based on the same compact software core - available as separate product supporting several platforms - allowing applications to transmit and receive standard compliant V2X messages over the air.



CORE FEATURES

CPU	800 MHz Freescale/NXP i.MX 6
OS	Linux (V2X)
RAM	2 GB DDR3 SDRAM
FLASH	4 GB eMMC
STORAGE	Dual micro SD Card slot
ETHERNET	10/100/1000 Mbps Ethernet
EXTERNAL I/O	Dual USB 2.0, GPIO
SUPERVISOR	Yes
BACKUP POWER	10 s Store & Shutdown
POSITIONING	Advanced GNSS
WIFI	Dual band a/b/g/n

CONNECTORS

ANTENNA	2 x DSRRC, 2 x C-V2X, 1 x LTE(o), 1 x WiFi, 1 x GNSS
DATA	1 x ETH, 2 x USB, 1 x CAN, 1 x OBD-II
OTHER	Power connector Reset button 4 x Bicolor LEDs
VIDEO	HDMI 1.4a
LINE OUT	3.5 mm jack

DIMENSIONS

(W x H x D) 168 x 32.2 x 109 mm / 6.61 x 1.26 x 4.29 inches

Weight: 560 g

AVAILABLE V2X RADIO VARIANTS

Autotalks Section (802.11p DSRC)

Qualcomm 9150 (3GPP r14 PC5 C-V2X)

SECURITY

USDOT SCMS / EU PKI support

Hardware Security Module (HSM)

ECDSA verification (> 2000 verifications),
ECDSA encryption (< 50 μ s signing delay)

NIST and Brainpool verification, encryption

Secure boot, encrypted storage, tamper proof system

EAL6+ certified and available with up to 1 MB of secure
SOLID FLASH

ARM TrustZone including the TZ architecture

ENVIRONMENTAL

Operation humidity: 10% ~ 95%

Storage humidity: max 95%

Temperature range: -40 °C to +65 °C

Vibration proof



V2X integration

Over the years, Commsignia gained a tremendous amount of advantage and experience in V2X on-board unit deployment and operation.