ASKEY – CTX-0800

Askey V2X OBU

With 5G communication built-in, it opens up a wide array of functions and mobile services related to autonomous driving, V2X, driving safety/efficiency enhancement, device diagnostics with ultra lower latency–all for providing excellent driving experience.

Featuring support for 5G NR and C-V2X, e-Call and precise positioning for centimeter level, the Askey 5G TCU can be customized to adapt to various requirements, making it the ultimate option for all car manufacturers.

System

- 5G NR Sub-6 NSA/SA, 4x4MIMO
- 5G & LTE Bands*: EU/NA/TW
- Support C-V2X Rel.15
- Precise GNSS: Multi-frequency and dead-reckoning, RTK Rover mode supported
- WiFi 802.11 a/b/g/n/ac & Bluetooth 5.0
- Memory*: 2GB LPDDR4, up to 4GB
- QSPI * : 32MB QSPI Flash, up to 256MB
- eMMC * : 16GB, up to 32GB
- IMU: Accelerometer, Gyroscope and Magnetometer
- HSM : FIPS 140-2 level 3 compliant
- eCall*

*Customizable by request

Physical

- Dimensions (W/H/D; mm)*: 243.5 x 166.5 x 28.2
- Chassis Material: Aluminum, IP4X/IP67 Antenna
- I/O Port:

  1000BASE-T1 x 1, 1000BASE-T x 1 (RJ45)

  CAN FD x2

  12/24Vdc Power input

  RF mini-FAKRA x 3

  Speaker-Out and Mic-In
- Operation Temperature: -40º C ~ +85º C
- GCF/CE Certification

V2X

- SAE J2735 (BSM, EVA, SRM, SPaT , MAP, SSM, RTCM, TIM, RSA)
- Security: IEEE 1609.2, ETSI TS 103 097
- Bandwidth: 20MHz
- Transmit power: 23dBm
- Transmit frequency: 5905~5925MHz
- Receiving frequency: 5905~5925MHz

ASKEY – CRU-0100

Askey V2X RSU

Askey V2X solutions support 4G LTE/5G NR Sub-6GHz and Cellular V2X (C-V2X) to provide cars with 360° awareness, detecting hidden threats beyond anything a driver or on-board sensors (vehicle-resident technologies) can see.

System

- 5G NR Sub-6 NSA/SA, 4x4MIMO
- 5G & LTE Bands*: EU/NA/TW
- Support C-V2X Rel.15
- Support Multi-frequency GNSS and RTK base station mode
- Memory*: 2GB LPDDR4, up to 4GB
- QSPI*: 32MB QSPI Flash, up to 256MB
- eMMC*: 16GB, up to 32GB
- HSM : FIPS 140-2 level 3 compliant
- Power: support both 12/24Vdc and 48Vdc POE

*Customizable by request

Physical

- Dimensions (W/H/D; mm)*: 245 x 201 x 73.5
- NEMA 4X IP67
- Chassis Material: Aluminum
- I/O Port:

  10/100/1000Mbps 802.3af/at PoE+ x 1

  12/24Vdc power input x1

  5G/LTE Antenna x 4

  C-V2X Antenna x2

  GNSS Antenna x1
- Operation Temperature: -40º C ~ +85º C

V2X

- SAE J2735 (BSM, EVA, SRM, SPaT , MAP, SSM, RTCM, TIM, RSA)
- Security: IEEE 1609.2, ETSI TS 103 097
- Bandwidth: 20MHz
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V2X REFERENCES

V2X Plugfest

- Intersection Collision Warning
- Vulnerable Road User
- Hazardous Location Warning
- Traffic jam warning

Automatous Bus

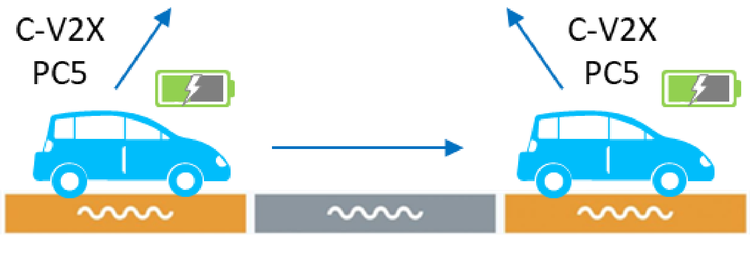
- Traffic Light Information
- RTCM

EMS Services

Emergency Vehicle Priority
(Fire truck / Ambulance)

EV APPLICATION ENABLED BY C-V2X

Dynamic EV Charging Infrastructure Application Using C-V2X



Bus Stop / EV Bus

Demand-Responsive Bus Service

- Real-time detection of people flow
- Dynamic bus dispatching
- RTCM

Road Safety UCs / Smart Pole

- Intersection Collision Warning
- Vulnerable Road User
- Traffic Jam Warning
- Roadside Infrastructure Roles