

DTR - DSRC Desktop Reader for 5.8GHz DSRC OBUs

Description

The Norbit DTR is a multi-application DSRC RSU adapted to desktop use. It is designed for communication with DSRC OBUs in accordance with relevant CEN/TC278 and ETSI standards.

The DTR has very low output power to ensure a safe working environment and to avoid interfering or interacting with other equipment.

The DTR operates in the 5.8GHz microwave band and has power output adapted to desktop use. The integrated antenna cradle guides correct OBU positioning.

The DTR contains both a DSRC antenna and a networkable computer. This results in a powerful system that enables the customer to easily integrate the DTR into their own systems. Norbit also offers a customizable PC program that provides a user interface for verifying, testing or personalising OBUs.

Applications

- OBU personalisation of e.g. vehicle class or licence plate number
- Verification of OBU functionality
- Semi-manual transaction processing at toll plazas for OBUs that cannot be read by normal means
- Topping-up and balance checking for prepaid accounts with account balance stored in OBU



Features

- Compact and sturdy RSU for desktop use
- Safe emission levels
- Communication limited to OBUs in the OBU cradle
- All-in-one solution, separate DSRC controller not needed
- Network interface provides easy interfacing with e.g. PC having user interface
- Optional use of RS232 or USB interface
- Supports the same network interface options as other Norbit RSU products
- Supports multiple DSRC application variants, including EN 15509, PISTA, CARDME, AI, AutoPASS, AS 4962-A/B, OGS, Thailand, Brazil, Chile, CCC (ISO/TS 12813), LAC (ISO/TS 13141), AVI (EN 16312/ISO 17264)
- Easy and flexible interfacing with other systems, a range of interface options available
- Interface compatible with other Norbit RSU products, including models for gantry mounting and vehicle roof-top mounting

FZ58058 technical features

Physical

Size (W x L x H)	158 x 200 x 105 mm
Weight	1.3 kg

Electrical

Power	10 – 32 Vdc
Supply current	< 1 A
Power consumption	< 10 W
Galvanic isolation	Yes

Interfaces

Network/Ethernet	Full duplex 100Mbit/s
Network indicators	Connection, activity, speed
Serial	RS232 (optional use)

Environmental

Operating temperature	-10 °C - +55 °C
Storage temperature	-20 °C - +70 °C
IP class ref. IEC 60529	IP 40
Relative humidity	5% - 95%, non-condensing

Lifetime

MTBF, ref. MIL-217F	140.000 hours
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Antenna

Polarization	LHCP
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Transmitter

Frequency range	5.7975 GHz, 5.8025 GHz, 5.8075 GHz, 5.8125 GHz
Output power	-13 dBm EIRP (50 µW)
Operator safety	Within FCC and EU health and safety limits at all distances

Approvals

EMC	ETSI EN 301 489-1
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DSRC Communication

Physical layer	EN 12253
Data link layer	EN 12795
Application layer	EN 12834/ISO 15628
EFC application profile	EN/ISO 14906
DSRC Profile	EN 13372 (Profile 0/1)
Interoperability	GSS 3.2, EN 15509
Non-EFC applications	ISO/TS 12813 (CCC) ISO/TS 13141 (LAC) EN 16312 (AVI/AEI) EN ISO 17264 (AVI interfaces)

DSRC compliance verification

Data link layer	ETSI TS 102486-1
Application layer	ETSI TS 102 486-2
EN 14906 compliance	ISO/TS 14907
EN 15509 compliance	EN 15876

Conformance

R&TTE	Ref. 99/5/EC
ERM	ETSI EN 300 674-2-1 EN 55022 Class B Ref. 2004/108/EC
EMC	ETSI EN 301 489 EN/IEC 61000-4-3
RoHS	Ref. 2011/65/EU
WEEE	Ref. 2012/19/EU

Options

- PC program for user interfacing
- USB interface



Ordering information

PartNo 20022-1