

TagTrans[®]

Barcode 2D Imager / RFID Read / Write-System for UHF, HF, LF

Rogged housing, IP67. ATEX approval
 Bluetooth, USB, RS232, RS485


A modular design features optimal adaption to the application



TagTrans[®] and FlexiScan[®]

2 D Imager and RFID Identifikation-System for UHF, HF und LF Transponder.

Mainly used as a hand held reader to identify objects, like cans, beer kegs, pressure cylinders,...and persons or live stock. The **Bluetooth Technology** realises a contact less – wireless operation. Best example is a Mobile Computer in the driver's cabinet connected wireless to the TagTrans reading milk cans or gas bottles around a truck. Or it is used as a fixed device for applications in asset control, factory automation, access control, etc.

- ✓ Low power consumption, power management utility for integrated rechargeable batteries
- ✓ integrated front side antenna
- ✓ reading distance from touch up to 100 mm, depending on HF or LF transponder type, with UHF transponders up to 600 mm
- ✓ 2 D Imager to read all standard 1 D and 2D Barcodes
- ✓ Programmable motion sensor to switch the device ON and OFF
- ✓ Operating Temperature -20C to +85C
Storage Temperature -40C to +85
- ✓ CE, FCC, ATEX II 3G Ex ic IIB T4 Gc // II 3D Ex ic IIIC T135°C Dc 
- ✓ Communication protocol ASCII or Binary, transparent mode
- ✓ Communication Interface Bluetooth, USB and serial RS232, RS422, RS485
- ✓ RoHS and UL compliant
- ✓ Easy to handle, robust body, highest protection against dust and submerge under water, IP67
- ✓ Industrial Bluetooth Class 1, Bluetooth 2.0 (2.1) + EDR module
- ✓ Connection to PDA's, PCs, Mobile Computers with Bluetooth - USB Stick, CF, SD, PC Cards or integrated Bluetooth (Mobile Phones)
- ✓ Beeper, LED indicators for Power, Signal, Communication Control
- ✓ Made for outside operations, industrial areas, rough environment, on vehicles, ...
- ✓ Compact and ergonomic design, small size: 49 mm Ø x 225 mm

Modular design:

Battery pack, electronic-unit with decoder, antennacap with Barcode 2D Imager and / or RFID Antenna



TagTrans®

Decoder and supported Transponders

Depending on tag type is Read Only or Read / Write

The modular design of TagTrans® ensures that decoders for different technologies and frequencies can be integrated, even Legic in HF band and in LF HDX.

UHF 868 – 960 MHz	
RF Frequencies	EU: 865.600÷867.600 MHz (ETSI EN 302 208), USA: 902÷928 MHz (FCC part 15), JP 952 – 954 MHz
Supported UHF Standards	ISO 18000 – 6C, EPC Class1 Gen2
Supported Tag-ICs	NXP: G2iL, UCODE HSL, G2XL, G2XM, G2iL, G2iL+, G2iM, G2iM+, I²C Impinj Monza-Familie, und alle ISO18000-6C kompatibel

HF 13.56 MHz Multi ISO				
RF Frequencies	13.56MHz			
Supported HF Standards	ISO14443A, ISO14443B, ISO 15693, ISO 18000-3, NFC enabled, I-CODE			
Supported Tag-ICs For HF Multi ISO	Mifare® Standard Mifare® 4k Mifare® Pro Mifare® Ultralight Mifare® DESFIRE Mifare® SmartMX LEGIC® Advant	I-CODE SLI (SL2 ICS 20) I-CODE EPC (SL2 ICS 10) I-CODE UID (SL2 ICS 11) I-CODE NFC (Reader To Tag Mode) SLE 55Rxx SRF55VxxP+S SLE 66CL160S SLE 66CLX320P	SR176 SRIX4K LRI 64 LRI 512 EM4135 KSW Temp Sens® Tag-it™ HF-I Standard Tag-it™ HF-I Pro	Jewel Tag Sharp B ASK GTML ASK GTML2ISO TOSMART P032/P064 ISO14443A Tags ISO14443B Tags ISO15693 Tags ISO18000-3 Tags

HF 13.56 MHz Gem+	
RF Frequencies	13.56MHz
Supported Tag-ICs	Gem+ / Tag-Sys, ARI0 10/210, ARI0 40/240

LF 125/134 kHz Multi Tag				
RF Frequencies	125 kHz, 134,2 kHz			
Supported LF Standards	ISO 11784, ISO 11785, ISO 18000-2			
Supported Tag-ICs for LF Multi Tag	Hitag 1 Hitag 2 Hitag S	Q5 EM4X02 EM4X05 (ISO FDX B) EM4X50	TI-RFID Systems HDX	134.2 kHz: 64Bit R/O 64Bit R/W 1088Bit Multipage

TagTrans[®]

Barcode 2 D Imager

Read and Decode 1D and 2D Barcodes
2D Imaging for mobile Applications.

Superior 2D imaging for mobile applications

The miniature 2D Imager Engine is designed for optimal integration into mobile devices. The superior image quality of the VGA charge coupled device (CCD) also enables signature and image capture. Its companion decoder, controls camera functions and decodes all popular 1D and 2D symbolologies omni-directionally.

BARCODE 2D Imager - Scan Engine von Motorola	
Scan Engine	Technical Data
Sensor Resolution:	640 (H) x 480 (V) (grau Skala)
Field of View:	Horizontal: 32.2° Vertikal: 24.5°
Focal Distance from Front of Engine:	Standard Bildschärfe: Nah: 5 Zoll, Entfernt: 9 Zoll HD Bildschärfe: Nah: 3.2 Zoll, Entfernt: 6.5 Zoll
Aiming LED (VLD):	650 ± 5 nm
Illumination Element:	635 ± 20 nm (LED)
Min. Print Contrast:	Minimaler Druckkontrast 25% absoluter Dunkel / Hell Reflex gemessen bei 650 nm
Decoder	Technical Data
Symbolologies Supported:	Alle wichtigen 1D Barcodes 2-D: MaxiCode, PDF417, DataMatrix, QR Code, Aztec & Composite Codes Postal Codes: US Postnet, US Planet, UK Postal, Australian Postal, Japan Postal
Image File Formats:	BMP, TIFF, JPEG
Programmable Parameters:	Power-Modus, Auslösemodus, Signalgeber, Sitzungsdauer, Bildschärfesteuerung, Kamerasteuerung, Bildsteuerung, erweiterte Datenformatierung, Dokumentenerfassung, Unterschriften Erfassung

Kommunikationsmodule

BlueTooth

Communication modul from BlueGiga

WT11 is a next-generation, class 1, Bluetooth 2.1 + EDR module. It's a highly integrated Bluetooth module, containing all the necessary elements from Bluetooth radio to antenna, and a fully implemented iWRAP protocol stack.

WT11(i) EDR Modul	
	Technical Data
Class	Bluetooth Class 1 BlueTooth 2.1+ EDR,
Antenna	Integrated Chip Antenne or U.FL Anschluss
Operating Distances	100 - 300m
Interfaces	USB, UART, GPIO, AIO and PCM Interface
Standard	802.11 co-existence Interface
Memory	8MB Flash Memory
Size:	35 x 14 x 2,3mm
iWRAP	Simple iWRAP Firmware for controlling Bluetooth Wireless Technologie
Industrial Temperature Range	-40C to +85C
PCB	RoHS conforme
Programmable	Up to 14 supported Bluetooth Profiles in iWRAP Firmware
Approvals	CE, IEC and FCC
Bluetooth-Stacks	reccommendation: IVT BlueSoleil www.bluesoleil.com

TagTrans®

Kommunikationsmodule

USB, RS232, RS485, BUS Module: CAN open, MOD-Bus Serielle and BUS Interfaces

Connection to USB-Port USB1.1 or USB2.0
USB Driver included

USB	
Technical Data	
Supply Voltage	Vcc + 5 VDC
USB Interface	Data-, Data+, Vcc, GND

RS232, RS422, RS485	
Technical Data	
Supply Voltage	Vcc +5 VDC oder +12 VDC
Interface	TX, RX, Vcc, GND
Parameter	9800, 1, 8, N,1,N

CAN open, MOD-Bus	
Technical Data	
Accordinging customers requirements	On request

Firmware

Configuration of TagTrans with any Terminalprogram

Default 9600,1,8,N,1,N

All functions can be set with ASCII Commands.
The programming manual i spart of the Start Up Kits.
Configuration files can be loaded remotely, as well as the firmware, or a reset to „Factory Default“.

über ASCII Commands einstellbar	
Technical Data	
Power Management	Control of the battery status with treshold values
Time Out	Timeout values for the RFID / Barcode Reader, the BlueTooth communication and the power supply
Motion sensor	3-xis Motionssensor (instead of a trigger swith) to activate the TagTrans
Communication parameter	Baudrate etc
BlueTooth Parameter	Activation and Deactivate of PIN, Pairing, device name, etc.
Light and acoustic signals	LED and Beeper control
Data formating	Multiblock Commands to edit and adjust the data read.
Barcode Imager	Reading intervalls, Barcodetyps, Pre- and Postamble, toggle between Barcode and RFID

System Requirements: Windows 2000 and higher

TagTrans[®]

Softwaretools

Wedge / HID Software DIVERSION

Program to copy the data from the serial port to the keyboard buffer. Time stamp could be added to the data

ATEX Certification

Certificate of Conformity from Bureau Veritas

All TagTrans[®] versions had been tested and approved for Zone 2 and Zone 22, gas and dust.
Drop tests: 2 m on concrete in whole temperature range in the entire temperature range.
Protection class IP67 confirmed for all versions.

FlexiScan

Antenna-Extension with 10, 36 and 60 cm (others on request)

The antenna is fixed in its own housing on the end of the extension, which is a watertight metal tube.
It can be bent, but still is stiff enough to allow stable reading.



CRADLE / Loading Station and Holder

Is available with or without loading (charging) pins

Two cradle versions are available, one with loading pins for charging the TagTrans battery pack. The other without pins, which is OK just as a holder (e.g. in a driver's cabin of a truck)

The cable of the charger is directly connected to the charging connector of the TagTrans, so charging is typically without any cradle.

If a cradle is used, the battery pack needs to have the charging contacts. The pins are in the cradle. The charger is connected to the cradle, it is the same connector as for a direct connection to the battery pack.
The cradle never has its own charging electronic.

TagTrans[®]

Accessoires

TagTrans [®] Zubehör	
Product	Charger
TT-2PA-C2CFS	Charger Egston 100-240VAC, 12 W, 4,2 V, 1,5A, international plugs Microprocessor controlled switching power supply
TT-2PA-2240MS	Charger Mascot 100-240VAC, 12 W, 4,2 V, 1,3A, international plugs Microprocessor controlled, Cable connection
	The CRADLE is an option! Please order separately And in addition you need the battery packs TT-ACC-C or TT-ACC-C+
TT-C-ACC	Cradle Set incl. separate charger
TT-C	Cradle with charging pins
TT-X	Cradle without charger pins, to be used as a holder only
Rechargeable Battery Pack / Standard 4.500 mA	
TT-ACC-N	Battery pack with charger connector , for direct connection of the charger, without charging pins
TT-ACC-N-Ex2	Battery pack same as above, but Ex2 Version
TT-ACC-C	Battery pack with charging pins , to be charged with the Cradle only
TT-ACC-C-Ex2	Battery pack same as above, but Ex2 Version
TT-ACC-CN	Battery pack with charger connector and charging pins . Can be charged directly without cradle or charged with cradle
TT-ACC-CN- Ex2	Battery pack same as above, but Ex2 Version
Bluetooth Adapter	
SD1000	Bluetooth RS232 Adapter: BT Specification v2.0 + EDR, Supports up to 4 multiple simultaneous connections, Working distance (In an open field) : Nom. 100 meters, up to 1000m using patch antenna, No external drivers required
UD 100	Bluetooth USB Adapter: BT 2.0+EDR Class 1, Working distance 300m, up to 1000m using optional antenna, USB 2.0 interface, Bluetooth driver CD (Toshiba / BlueSoleil driver)
SD-DU	Additional Antenna 5 dBi dipol for Bluetooth adapters
Optional	
L	Lanyard and connecting link on FlexiScan versions
Software	
DIVERSION	Program to copy the data from the serial port to the keyboard buffer. Time stamp could be added to the data



Anwendungsbeispiele

Service and Quality Management

Inspection, recording and logging
 Service and security check need protocol with explicit device recognition.
 RFID tags have a worldwide unique UID /TID and in addition a user memory which may be used for device related data like next service date etc. Which are offline accessible with a mobile reader

Asset Tracking and Tracing

Marking and coding of assets and inventory
 Data collection of inventory, status and quantities
 Swap in and out
 Assets and inventory are a main part of the property of a company. Sustainable and reliable marking with a RFID transponder with a worldwide unique ID enables tracking and tracing and easy continuous inventory.



Service companies for municipals and public utility companies

Waste and garbage disposal companies
 service and inspection (drains, water, gas, telephone, electronic power)
 Inventory in parks (trees) and public areas, sanitary facilities
 The waste bins have transponder which allows an individual id and accounting for the weight or quantity of garbage.
 Transponders are fixed on drain pipes and inspection points and read for status records and service information's.

Logistics

Transport logistics, air and sea freight, post and parcel services
 Transport of hazardous goods, sensitive products temperature control, cold chain, pharmacy logistics, food and animal transports
 Where is the shipment? Is it still ok?
 ...by tracking and tracing of the barcode or RFID tag data. With temperature and shock sensors other significant data will be recorded.



Vehicle Identification and Location

Control refuelling and collect refuelling data automatically.
 Access to private, business and public premises
 BlueTank provides fully automatic monitoring of fuelling processes.
 Fuel losses are avoided, because only authorized vehicles with a registered RFID transponder can be refuelled.
 Proper accounting per vehicle, no chance to refuel cans or cars without transponders

Production

Shop floor data collection, production time recording, fully automatic control of programmable controllers, e-Kanban, workflow tracking in production processes, automation in laundries RFID transponders control the program of a welding pistol. The RFID reader is used like a tool and communicates via Bluetooth with the CNC control to start the right program. E-Kanban as standalone solution guarantees delivery of production components when needed.



Identification of People

Time and attendance, access control, security in tunnels and mines, access control and security control in public areas, government buildings, schools ...
 Ticketing at events sports and leisure areas
 Access barriers and turns stiles are operated by RFID cards or fingerprint readers. To capture and record all people in a mine or tunnel in as well RLTS in use.

Security Systems

Systems to avoid counterfeit, counterfeit security
 Using RFID's feature of the worldwide unique RFID - UID/TID products get a not changeable identity.



TagTrans[®]

Versions

More Details see price list

A modular design features optimal adoption to the application

TagTrans[®] BlueTooth Interface

	RFID	Imager	Interface	Antennenkappe
TT -		BC2	BT -	F
TT -	LF -		BT -	F / D / FS10 / FS36
TT -	LF -	BC2 -	BT -	F
TT -	HF1 -		BT -	F / D / FS10 / FS36
TT -	HF1 -	BC2 -	BT -	F
TT -	UHF2 -		BT -	F / LR
TT -	UHF2 -	BC2 -	BT -	F

TagTrans[®] USB Interface

	RFID	Imager	Interface	Antennenkappe
TT -	-	BC2	USB -	F
TT -	LF -		USB -	F / D
TT -	LF -	BC2 -	USB -	F
TT -	HF1 -		USB -	F / D
TT -	HF1 -	BC2 -	USB -	F
TT -	UHF2 -		USB -	F / LR
TT -	UHF2 -	BC2 -	USB -	F

TagTrans[®] RS232/485 Interface

	RFID	Imager	Interface	Antennenkappe
TT -	-	BC2	RS232/RS485 -	F
TT -	LF -		RS232/RS485 -	F / FS10 / FS36 / D
TT -	LF -	BC2 -	RS232/RS485 -	F
TT -	HF1 -		RS232/RS485 -	F / FS10 / FS36 / D
TT -	HF1 -	BC2 -	RS232/RS485 -	F
TT -	UHF2 -		RS232/RS485-	F / LR
TT -	UHF2 -	BC2 -	RS232/RS485-	F

TagTrans[®] ATEX Ex2

	RFID	Imager	Interface	Antennenkappe	ATEX-Zulassung
TT -	-	BC2	BT -	F -	Ex2
TT -	LF -		BT -	F -	Ex2
TT -	LF -	BC2 -	BT -	F -	Ex2
TT -	HF1 -		BT -	F -	Ex2
TT -	HF1 -	BC2 -	BT -	F -	Ex2
TT -	UHF2 -		BT -	F -	Ex2
TT -	UHF2 -	BC2 -	BT -	F -	Ex2

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