

# OPTIONAL ACCESSORIES

Optional Accessories Catalogue 2021





# **ACCESSORIES CONTENTS**

Mounting Bracket	3
Display Stand	4
Standard Console	5
Compact Keyboard with Trackball	6
USB Cable	7
External NMEA COM Module	
2 Channel Data Buffer	9
4 Channel Data Buffer	10
8 Channel Data Buffer	11
10 Channel Data Distribution Interface	
Battery Backed Power supply	



SKU: MOU-001

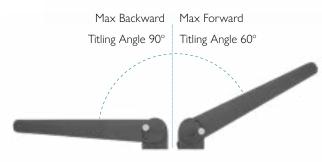
# **MOUNTING BRACKET**

For mounting ECDIS Display to desktop or ceiling.

#### Short of space

Our ECDIS Mounting Bracket can be fitted to your display allowing you to fit your display pretty much anywhere.







#### Kit includes

2 x fully assembled brackets

4 x M5 Unbrako® Hex Key screws

4 x metal spring washers

#### **Dimensions**

### Shipping Dimensions

 Height:
 384 mm (15.1")
 Height:
 400 mm (15.7")

 Width:
 115 mm (4.5")
 Width:
 200 mm (7.9')

 Depth:
 60 mm (2.4")
 Depth:
 150 mm (5.9")

 Weight:
 0.3kg / 0.7lbs
 Weight:
 0.5kg / 1.1lbs

**Note:** Can not be combined with internal HDD storage, use SSD storage in order to meet EN60945 requirements.

SKU: MOU-002

**DISPLAY STAND** 

**ECDIS Mounting** 

#### An efficetive combination

The SEALL Display Stand for our ECDIS system is an elegant display stand that is perfect for space-saving on an otherwise small or cluttered bridge. It's sturdy and solid base will keep the stand where you place it and withstand the high traffic abuse of typical bridge environments.

### Cable management

Cables can be passed through the display stands stem hole, which is sized to allow for most AC/DC connectors to pass with ease, and into the stands hollow tube. Once in the tube, the cable can be passed through the bottom. A cutout is provided for easy routing of cable to a floor receptacle or other location.





#### Adustable and secure

The Display Stand has an adjustable swivel head so that the angle of the attached screen / panel pc can be modified to suit the environment / user.

Use the bolting pattern with a bolt made for the type of floor material in the area (not included).

#### **Dimensions**

 Height:
 1174 mm (46.2")
 Height:
 1200 mm (47.2")

 Width:
 250 mm (9.8")
 Width:
 400 mm (15.7")

 Depth:
 375 mm (14.8")
 Depth:
 400 mm (15.7")

 Weight:
 6.5kg / 14.3lbs
 Weight:
 7kg / 15.4lbs

Shipping Dimensions



SKU: MOU-003

# STANDARD CONSOLE

Our ECDIS Console for on-bridge and simulators in maritime education schools and institutions.

# Designed to meet international standards

Our standard console aims to minimize space and uses ergonomics and class rules. With a modular design system and the option to remove the keyboard tray for an even slimer version, perfectly suited for container vessels with their relatively small wheelhouses.

Display: (SKU: ECD-001) not included.





#### **Dimensions**

**Height:** 1245 mm (49") **Width:** 700 mm (27.6")

Depth: 865 mm (34.1") Standard

515 mm (20.3") without attachment

Finished: RAL 7016 Anthracite grey



SKU: KEY-001

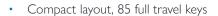
# COMPACT KEYBOARD WITH TRACKBALL

This 85 key keyboard features a compact rubber keyboard with integrated waterproof ergonomic trackball.



### Optimised performance

The backlit keys warrant for optimised performance while working in low-light environments.



- · Version with or without backlighting
- Dimmable backlighting at 8 levels by two dedicated keys (FN key + arrow up/down)
- Low power LED's warrant for a long life
- 38 mm waterproof ergonomic trackball with hall-effect scroll wheel
- Removable ball for easy cleaning
- Integrated left, middle and right switch functionality
- No external power supply necessary, keyboardport power sufficient
- Compact thickness





#### **Dimensions**

Desktop Keyboard		Panel Mount Keyboard	
Height:	68 mm (2.7")	Height:	68 mm (2.7")
Width:	420 mm (16.5")	Width:	415 mm (16.3')
Depth:	150 mm (5.9")	Depth:	145 mm (5.7")



SKU: USB-001

# **USB CABLE**

## Type A plug to chassis mount Type A receptacle for all panel computers and computers.

Suitable for installations that feature a secure fastening connection from external equipment with standard Type A ports to all Hatteland Display computers and panel computers with standard USB Type A ports. RoHS Compliant.

### **Specifications**

Waterproof Rate: IP67. (No Ingress of dust /

> Protected against harmful effects caused in 1 meter water within

30 minutes)

Temperature Range: -20°C to +80°C

Max Panel Thickness: 7.0mm (Without Cap Chain)

Materials: Housing: Nylon, Black

> Conn.1: USB2.0-A, Jack Conn.2: USB2.0-A, Plug Cap: Nylon, Black

1m. UL2725 USB2.0

Receptacle Connector: USB-A Plastic C3 Panel Jack screw

with pig tail (GT116300-30)

Type Approval / Testing: Hatteland Technology standard,

(tested / type approved by the following classification societies): IEC 60945 4th (EN 60945:2002), IACS E10, EU RO MR - Mutual

Recognition





#### Kit includes

Cable:

1 x 218-N28 - Cable tie fastener w/glue Panuit 30

1 x B2-100 Black Cable tie 2,5x100mm

1 x GTC Waterproof Mating Cap P/N GT1C533122



SKU: USB-002

# EXTERNAL NMEA COM MODULE

The Hatteland Technology COM modules provide the system with quad independent COM channels. The module is attached to the motherboard via standard USB interface. Application software access the COM channels as standard COM devices, i.e. in the normal case is there no requirements for additional software development. This module will mainly be integrated, electrical and mechanical, in the final products, such as; Series X G1/G2, Series E Panel Computers and selected Stand-alone Computers.

#### **Features**

- Independent channels (If card is replaced most OS will not change COM port number).
- Outputs are short circuits protected. Inputs are protected.
- · Driver strength are approved.
- All channels is fully isolated, channel to channel and channel to chassis.
- Classified towards IEC61162-1 and IEC61162-2.
- Tested according to EN61162.
- NMEA-183 Compliant.
- All requirement for usage in ECDIS applications/ systems is fulfilled.

#### **Dimensions**

Width: 129 mm (5.1')
Height: 46.5 mm (1.8")
Depth: 118 mm (4.6")

### Specifications

Absolute Max voltage applied to outputs:

Date Rate / Technical

Data Output

Outputs 230kbps (Theoretically

400kbps).

±15V

±15kV ESD protection on all RS-485 signals. (Human Body Model

- HBM)

Isolation rating = 1000V DC 60s, not intended for connection to

live power nets.

Transmitter enable

mode

Standard Mode is automatic.

Standard Mode will accept send by RTS, but will in fact ignore RTS.
Each channel have a overide jumper\* which can be used to force the transmitter to always be active. See below and next page

for details.

Cable Connector Terminal Block 5-pin rows (MC

1,5/5-STF-3,81)

Cable Thickness Minimum 22 AWG - Maximum 18

AWG

Power Consumption 0,6824A @4 active channels, 9600

bit/s,  $27\Omega$  load

Supported Operating

Systems (OS)

Microsoft® Windows® 7

Professional/Ultimate (Eng, SP1), Windows® 10 IoT Enterprise 2016 LTSB. Windows® 10 IoT

Enterprise 2019 LTSC

Linux: Generic support for Kernel

3.0.0.19 or newer



SKU: NMF-001

# 2 CHANNEL DATA BUFFER

## Data Buffer – 1 input 2 output

The 2 Channel Data Buffer is a highly reliable serial data buffer for NMEA 0183 data. The buffer has one input channel, passing data from the source equipment to the multiple destination equipment via two RS422/RS232 channels.

Various serial data types are accepted, including RS422, RS232 and 5V TTL signals, with full DC isolation between input and outputs, with each of the outputs being isolated from each other.

With a small footprint it may be installed almost anywhere, and all connections have been designed for ease of use, with little effort required for full termination.

Applications include distribution of data such as GPS, Gyro, AIS, Speed log, to various equipment such as VDR, ECDIS, Radar and BNWAS system with no loss of signal strength.



## Specifications

Power Input: Nominal 24vDC

**Data Input:** 1 NMEA Input Port - RS422, RS232, Current loop and 5V TTL Signal

High Speed Support, up to 115,200bps

Data Outputs: 2 Output ports - RS422, RS232, 5V TTL

High Speed Support, up to 115,200bps

Protection Circuits: Input Port: Over voltage & reverse voltage protection

Output Ports: Over current protection and surge voltage protection

Input Power: Reverse voltage input protection

Indicators (LED): Input power (Red), Data Out (Orange)

Operating Temperature: 1 S°C ~ +55°C

Standard: NMEA 0183 (IEC61162-1) Standard Compliance

RS-422 (ITU-X.27/V.11) Compliance

#### **Dimensions**

**Height:** 30 mm (1.2")

**Width:** 90 mm (3.5')

**Depth:** 60 mm (2.4")

**Weight:** 100g / 0.2lbs



SKU: NME-002

# 4 CHANNEL DATA BUFFER

# Data Buffer – 1 input 4 output

The 4 Channel Data Buffer is a highly rellable serial data buffer for NMEA 0183 data. The buffer has one input channel, passing data from the source equipment to the multiple destination equipment via four RS422/RS232 channels.

Various serial data types are accepted, Including RS422, RS232 and SV TTL signals, with full DC isolation between input and outputs, with each of the outputs being isolated from each other.

With a minimal footprint it may be installed almost anywhere, and all connections have been designed for ease of use, with little effort required for full termination.

Applications include distribution of data such as GPS, Gyro, AIS, Speed log, to various equipment such as VDR, ECDIS, Radar and BNWAS system with no loss of signal strength.



### **Specifications**

Power Input: Nominal 24vDC

Data Input: 1 NMEA Input Port - RS422, RS232, Current loop and 5V TTL

Signal (Accept automatically). Up to 230,400bps

Data Outputs: 4 Output ports - RS422, RS232, 5V TTL

(Select by jumper of each output independently)

**Protection Circuits:** Input Port - Over voltage protection (up to 36V)

Output Ports - Over current, surge voltage protection

Input Power - Reverse voltage protection

Indicators (LED): Input power (Red), Data In/Out (Green)

Operating Temperature:  $15^{\circ}\text{C} \sim +55^{\circ}\text{C}$ 

Standard: NMEA 0183 (IEC61162-1) Standard Compliance

EIA RS422 (ITU-X.27/V.11) and EIA RS232 Compliance

#### **Dimensions**

**Height:** 30 mm (1.8")

**Width:** 107 mm (4.2')

**Depth:** 75 mm (3")

Weight: 300g / 0.7lbs



SKU: NMF-003

# 8 CHANNEL DATA BUFFER

## Data Buffer – 2 input 8 output

The 8 Channel NMEA Buffer is a high reliable serial data distributor for relaying NMEA 0183 data to 8 source equipment. It receives 2 NMEA signals and splits one of them into 8 NMEA output ports. It is very useful for safety navigation with protecting system faults. If one GPS input signal is lost then NMEA Buffer selects another GPS input signal automatically (or manually), and it maintains to output without any system errors.



This interface can receive any type of serial data such RS422, RS232, 5V TTL signal. and has both high voltage protection and reverse input protection.

2 output ports of 8 outputs are able to be selected RS422 or RS232 type and features full DC isolation between input signal, output signal and input power.

#### **Specifications**

NMEA Input: 2 NMEA Inputs

Support all RS422 (NMEA 0183), RS232, Current Loop and 5V TTL

Automatically or Manually

switched between Input A and B0 Primary Input Port is able to be specified up to 115,200bps

**DIP SW (LEFT SIDE)** SW 1: Select primary(default)

Input port (A or B)

SW 2: Select change mode (Automatic or Manual change) Auto Baud Rate Detection

NMEA Output: 8 Independent RS422 (NMEA

0183) Ports

2 Output Ports (Port 7 and 8) are able to be configured independently for both RS422 and RS232 by each jumper supports

Up to 115,200bps

Display (Left Side) Input Power: Red LED

NMEA Data Input: Green LED

(Each A and B Input)

Protection Circuits: Input Data Circuit: Over Voltage Input

Protection (36V 1min)

Output Data Circuit: Over Current and

Surge Voltage Protection

Input Power Circuit: Reverse Input and

Over Current Protection

Operating  $15^{\circ}\text{C} + 55^{\circ}\text{C} (-59^{\circ}\text{F} \sim 131^{\circ}\text{F})$ 

Temperature:

Power Input: 18~32VDC, Approximately 200mA

Electric Fuse, No Replacement Required

Optional: DC12V (9~16V)

Standard: Compliance with NMEA 0183 and

IEC61162-1 Standard

Compliance with EIA RS422

(ITUX.27/V.11)

Compliance with EIA RS232 Standard

#### **Dimensions**

**Height:** 49 mm (1.9") **Depth:** 139 mm (5.5")

**Width:** 193 mm (7.6') **Weight:** 1Kg / 2.2lbs



SKU: NMF-004

# 10 CHANNEL DATA DISTRIBUTION INTERFACE

## Data Buffer – 2 input 10 output



The 10 Channel Data Distribution Interface solves the distribution of NMEA 0183 data to a multitude of equipment by acting as a junction box for the numerous cables. Additionally, whilst ensuring that the connections and screens meet the NMEA 0183 standard.

The Interface also provides 10 output ports which are totally electrically isolated from the input. This is to protect the system from damage and accidental short circuit.

Additionally two Nav-aids may input their data but in the "auto mode," only the priority channel 1 will output the data with fail-safe to channel 2.

The input circuits will accept NMEA 0183 version 1 and 2, IEC 61162, RS232, and RS422.

No matter what NMEA is inputted, it outputs via 10 ports conforming to NMEA 0183 versions 1 and 2, IEC 61162, RS232, RS422, NMEA 0183-HS, and IEC 61162-2.

Version 2 can handle 38,400 Baud rate making it suitable for the distribution of high speed heading input signals for redistribution to ARPA radars. The design also takes precaution against reversed supply and over Voltages. As well as the possibility of overload or overdrive of the output ports.

### **Specifications**

Power: 9v to 30v DC at less than 100 mA

**Inputs:** 2 Channels:

NMEA 0183, IEC 61162, RS232, RS422,

Baud rate up to 38,400 bits/sec

Ch 1 priority, changes over to Ch 2 if Ch

1 input stops

Outputs: 10 Channels:

NMEA 0183, IEC 61162, NMEA 0183-HS,

IEC 61162-2

Standard and high speed data

All outputs ore isolated from power

source and data input

Data common is grounded.

Cable screens grounded for effective EMC

control

Each output A & B line 10 mA max,

5volts, via 47 ohms

**Connections:** Onto PCB via pluggable terminal blocks

Indicators: LEDs on PCB to indicate power on, input

and output data

#### **Dimensions**

**Height:** 60 mm (2.4")

**Width:** 240 mm (9.4')

**Depth** 160 mm (6.3")



SKU: UPS-001

# BATTERY BACKED POWER SUPPLY

The power supply is designed for use in marine.

It has been designed for use with technically sophisticated applications which have been developed. It provides power to devices with 24V-28VDC (variable adjustable) from a primary voltage of 94-264VAC or 110-300VDC and thus can be used by security-relevant consumers without any switching delay.

### **Specifications**

Input: Nominal 115/230v. 50/60 Hz.

Output-Voltage: 24 – 28VDC

(30VDC on customer request)

External Input for 24 – 30VDC

Bypass:

**Primary Supply** 94 – 264VAC or 110 – 300VDC

Voltage:

**Output:** max. 480W; 8 sec. 150 %

Fuse: 20A secondary

Safety Features Short-circuit-proof; Overload proof;

Thermal overload protection; Incrush

current limitation

Standards: IEC60945, DNV GL No. 6025309 HH

#### **Dimensions**

Height: 300 mm (11.8")Width: 200 mm (7.9')Depth: 120 mm (5.1")Weight: 4.5kg / 9.9lbs



