DAMM® Service Box SB422

Description
The DAMM Service Box SB422 is designed to provide full physical support for up to two DAMM BS422 or two BS421 base stations[1], containing a powerful base station controller and power supply connections including internal battery options as well as Ethernet connections.

Power supply and charging
The SB422 is equipped with a built-in power supply for connection to 100–240VAC or -48VDC and can supply power for up to two BS422 base stations. In addition, it offers a -48VDC output for charging batteries (internal or external). The SB422 is lightning protected by internal circuits.

The standard configuration includes:

- PC422 Computer
- SW422-B4 Ethernet Switch
- PPS422 PPS Splitter
- Internal and external connection modules
- Alarm I/Os

Optionally the SB422 can be ordered with:

- BAT422SB battery
- UH422 USB hub and LTE modem

The service box is designed for outdoor use, mounted directly on the antenna mast in a distance of up to 100 metres from the base station(s). Please note that Category 6A is required for the Ethernet connections when exceeding 55 metres of cable length. The unit is to be fastened and installed on a mounting plate, which is supplied with the service box – including clamps from 30–102mm diameter. Mounting kits to fit units up to 200mm can be supplied.

All connections in and out of the service box are handled by connection boards, making installation and maintenance nice and simple. With this concept all connections can be prearranged and so only a few connections have to be done on site (e.g. AC/DC).

Optional redundant configuration
To provide best possible availability, a second SB422 can be installed to create a redundant setup without a single point of failure. With this setup it is also possible to operate up to four BS422 base stations at one location, providing high-capacity radio coverage.

Alarm I/Os
Alarm I/Os are provided as part of the standard delivery of the SB422 to provide a maximum of flexibility in various applications.

Output:

- Alarm live supply L1, L2, L3
- Generic output L4

Input:

- Power reduction IN1
- TX off (BS idle mode) IN3
- Generic input IN2, IN4

KEY FEATURES

- Efficient power supply – low OPEX
- Optional redundancy
- Optional Li-Ion backup battery

[1]Note that it is not possible to run a BS421 and a BS422 from the same service box

Specifications

Parameter	Value
Power supply	
AC supply voltage	100–240VAC / 47–63Hz
DC supply voltage	-48VDC (44–58V)
BS output voltage	56VDC
BS maximum output current	7A
Power consumption	Max. 450W
Power consumption, idle mode, no BS load	46 W

Connectors	Value
AC mains connector	Screw terminal 3 x 4mm² (L, N, PE)
Cable gland	Ø8-14mm
External DC supply connector (right-hand side)	Screw terminal 3 x 4mm² (-48, 0, PE)
Cable gland	Ø8-14mm

External connection module	Value
INT	8 x LSA
DMZ/EXT	8 x LSA
48V IN BATT (DC power supply or battery in)	Screw terminal 3 x 2.5mm² (+, PE, -)
Cable gland	4 x Ø6-10mm
Alarm Connector	
Alarms IN	8 x LSA
Alarms OUT	8 x LSA
I/O input voltage	5V, 5.5V$_{max}$
Active low load	3.3mA
I/O output voltage	5V, 12V, 24V
Output type	OC (open collector)
Maximum rating OC	40V, 100mA

Base station connection module	Value
BS1 DMZ/EXT	4 x LSA
BS1 INT	4 x LSA
BS2 DMZ/EXT	4 x LSA
BS2 INT	4 x LSA
Power out BS1	Screw terminal 3 x 2.5mm² (0V, GND, -48V)
Power out BS2	Screw terminal 3 x 2.5mm² (0V, GND, -48V)
Cable gland	4 x Ø6-10mm

Physical	Value
Dimensions w/o mounting bracket (H x W x D)	375 x 283 x 208mm
Weight w/o mounting bracket (w/o options)	9kg
Weight w/o mounting bracket incl. BAT422SB and UH422	12.5kg
Wind area	0.1m²
Storage temperature	-40°C to +85°C
Storage temperature with batteries	-5°C to +60°C (0°C to 25°C recommended)
Operating temperature	-25°C to +55°C
Operating temperature with batteries	-20°C to +55°C
Encapsulation (dust and water protection)	IP65

Ordering

Item number	Description
10535001	SB422 Service Box

Ordering options and accessories

Item number	Description
SB-422-RED	Redundant SB422 Service Box
acc105353	BS Connection Module for SB422
acc105354	Ext. Connection Module for SB422
tbd	BAT422SB Battery Pack 48V 10Ah (available soon, please contact your sales contact)
tbd	UH422 USB Hub with LTE (available soon, please contact your sales contact)
acc205081	Mounting plate for BS/SB421 30–102mm (included in SB422)
acc205190	Clamp kit 30–51mm
acc205191	Clamp kit 50–102mm
acc205192	Mounting kit 100–153mm (for larger diameter masts)
acc205193	Mounting kit 150–200mm (for larger diameter masts)

Specifications subject to change without notice
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