

The DAMM TetraFlex® Outdoor System is the most user-friendly, flexible and cost-effective TETRA infrastructure system available. With its high reliability and unique design it is the ideal solution for mission critical communications.

MMAQ

Full network flexibility

The DAMM TetraFlex system is scalable and can handle from one site solutions with local coverage to large-scale multisite solutions, using any combination of outdoor and indoor DAMM TetraFlex base stations. Together with the intelligent DAMM TetraFlex software, simple and smooth site expansion is possible, even while in operation.

The 100% IP-based technology provides full architectural network flexibility with all network components connected in a single state-of-theart infrastructure without the need of a central

Easy to install - anywhere

Plug and play simplicity enables easy setup and fast deployment. With its IP65 protection the DAMM TetraFlex Outdoor Base Station is ideal for installation in harsh environments. A compact design enables direct mounting on antenna masts, buildings and towers, reducing feeder loss and installation costs considerably, while also providing an ideal solution for rapid, vehiclebased deployment.

Secure and failure tolerant

Featuring full support for battery backup as well as redundant controllers, power supplies

and carriers, DAMM TetraFlex meets your highest requirements on reliability. The intelligent distributed architecture replicates information to all sites in the network, avoiding any single point of failure.

Unlimited application integration

DAMM TetraFlex is supplied with Application Gateways for easy access to the Application Programming Interface (API), Packet Data Gateways and Voice Gateways, allowing you straight forward development of customerdesigned applications or integration to existing telephone systems and control room equipment.

As an independent TETRA infrastructure provider DAMM TetraFlex Base Stations are IOP certified for full compatibility with all TETRA terminals, providing you with the option freely to choose your favourite terminal brand.

Wide range of advanced software tools

The DAMM TetraFlex system is available with a wide range of application software such as Voice and Data Log System, Dispatcher, Group Bridge and a comprehensive Network Management tool including subscriber management and network performance statistics.

DAMM Cellular Systems A/S

Møllegade 68 6400 Sønderborg Denmark Phone: +45 7442 3500 Email: sales@damm.dk

www.damm.dk



Key Specifications

The DAMM TetraFlex Outdoor System consists of the Base Station Transceiver (BS421) together with the Service Box (SB421) containing the base station controller and the power supply. The system is pre-installed with the DAMM TetraFlex Software package.

DAMM TetraFlex System - Default settings

Function	No.	Function	No.
Organizations max.	1000	Application GW Connections max.	
Profiles max.	10000	Application GW Streams max.	100
Subscribers max.	150000	Application GW Streams (Client) max.	32
Nodes max.	999	Log Servers max.	25
Voice GW Connection max.	32	Terminal GW Connections max.	10

Only default settings. Can be expanded on request.

Base Station Transceiver BS421 Frequency Bands

	300 MHz Band		400 MHz Band		800 MHz Band	
RX	300-310 MHz	350-360 MHz	380-390 MHz	410-420 MHz	450-460 MHz	805-825 MHz
TX	336-346 MHz	360-370 MHz	390-400 MHz	420-430 MHz	460-470 MHz	850-870 MHz
BW	10 MHz	5 MHz	5 MHz	5 MHz	5 MHz	14 MHz

For Russia available 412-417 / 422-427 Mhz band. Other frequencies on request.

Transmitter and Receiver

- TX power at antenna connector:
 0.5 W to 10 W TETRA remotely adjustable
- RX sensitivity with diversity, static: -121dBm
- RX sensitivity without diversity, static: -118dBm
- RX sensitivity with diversity, dynamic: -118dBm
- RX sensitivity without diversity, dynamic: -112dBm
- Receiver Diversity: Dual as standard
- Built-in duplexer:
- Combines TX and RX to one antenna
- Redundancy: Hot Standby
- Synchronization: Internal or external with GPS

Service Box SB421 Base Station Controller

- Max. distance SB421 BS421: 100 m.
- One SB421 controls four BS421 and power two BS421
- Redundancy: Hot Standby

Antenna Connections

- Antenna set-up:
 One antenna per carrier, minimum two antennas for diversity
- GPS antenna: One GPS antenna per carrier. Active (+5 VDC) or passive

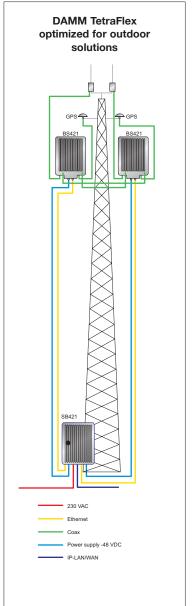
BS421 SB421 Input Voltage -48 VDC (galvanic isolated) 100-240 VAC or -48 VDC Power Consumption 75 W at 10 W TETRA 20 W Optional internal battery 4 x 12 VDC 7Ah Optional external battery 4 x 12 VDC

Note: An external Battery Pack BP421 is available as an option, to extend operation time on power failure. The BP421 is charged via SB421, and ready for outdoor installation.

	Dimensions (HxWxD)	333 x 246 x 165 mm	375 x 283 x 215 mm	
Mechanical	Weight	9 kg	9 kg*	
	Wind area	0.08 sqm	0.10 sqm	
	Operating temperature	-25°C to +55°C*		
	Storage temperature	-40°C to +85°C		
	Encapsulation	IP65		
	Lightning protection	Internal		

Specification without internal battery

Specifications subject to change without notice DAMM and DAMM TetraFlex are registered trademarks of DAMM Cellular Systems A/S



Standards and Approvals

- TETRA Specification, EN 300, 394-1, v.3.1.1; please refer to DAMM TetraFlex feature list
- IOP Certification; please refer to www.tandcca.com for details
- DS/EN ISO 9001:2008, DS/EN ISO 14001:2004, DS/OHSAS 18001:2008

Note: Compatibility tests with TETRA terminals are maintained by DAMM for newest SW updates.

