



J1-LED IN PARTNERSHIP WITH **ABUSS**

PRODUCT BROCHURE

MS1 - Type 211

SPECIFICATION SHEET



[VIEW ON WEBSITE](#)

DESIGN & PROTOCOL COMPLIANCE

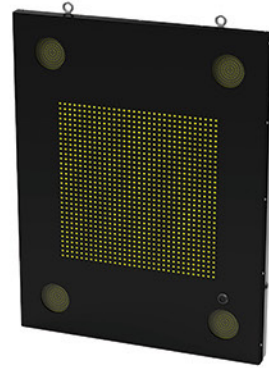
<u>NATIONAL HIGHWAYS:</u>	<u>UK STANDARDS:</u>
✓ TR1100	✓ BS EN 12966
✓ TR2652	✓ BS EN 12899
✓ TR2653	✓ BS 7671
✓ TR2654	✓ UMSUG
✓ TR2655	

KEY FEATURES

LED display utilises full-colour RGB panels (SMD 3-in-1 Lens Modules) for displaying dynamic information to motorists. This high-resolution, multi-colour availability provides enhanced viewing clarity with excellent control over a broad spectrum of colours.

The J1-LED MS1 is designed and manufactured to the latest National Highways specifications integrating the new NMCS2 over IP for improved communications services while retaining the NMCS2 over RS482 for legacy installations.

The J1-LED MS1 is designed to be mounted to new and legacy Type 75 post installations. The structure located on the rear of the enclosure uses the same mounting points as the legacy MCX0201 X-Frame.



SPECIFICATIONS

PRODUCT	MS1 - TYPE 211
MODEL NO	J1-D-1104-MA-100
RESOLUTION	32 X 32
PIXEL PITCH	20mm
DISPLAY SIZES	MAIN DISPLAY: 640mm X 640mm 4X DUAL COLOUR LANTERNS: 125mm
OVERALL ENCLOSURE SIZE	1295mm (H) X 1000mm (W) X 135mm (D)
ESTIMATED MASS	44kg
CONTINUOUSLY VARIABLE DIMMING LEVELS	YES
ENCLOSURE MATERIAL	MARINE-GRADE ALUMINIUM
INGRESS PROTECTION	IP65
COMMUNICATIONS	RJ45 (NMCS2 OVER IP) / RJ45 (DIAGNOSTICS) / RS485 (NMCS2 OVER RS485)
POWER SUPPLY	230V AC
LED DISPLAY PANEL	SMD 3-IN-1 FULL-COLOUR RGB LENS MODULES
OPERATING TEMP	-15°C TO +70°C
MOUNTING ARRANGEMENT	TO SUIT A TYPE 75 CENTRAL RESERVATION POST
CONTROL SYSTEMS	NATIONAL HIGHWAYS TELECOMMUNICATIONS NETWORK (NMCS2 & RMAS)

PLEASE NOTE MOST DETAILS CAN BE AMENDED BY J1-LED'S IN-HOUSE ENGINEERING TEAM TO SUIT YOUR PROJECT

MS4

SPECIFICATION SHEET



[VIEW ON WEBSITE](#)

DESIGN & PROTOCOL COMPLIANCE

NATIONAL HIGHWAYS:

- ✓ TR1100
- ✓ TR2652
- ✓ TR2653
- ✓ TR2654
- ✓ TR2660

UK STANDARDS:

- ✓ BS EN 12966
- ✓ BS EN 12899
- ✓ BS 7671
- ✓ UMSUG

KEY FEATURES

The MS4 LED display utilises full-colour RGB panels (SMD 3-in-1 Lens Modules) for displaying dynamic information to motorists.

This high-resolution, multi-colour availability provides enhanced viewing clarity with excellent control over a broad spectrum of colours.

The J1-LED MS4 is designed and manufactured to the latest National Highways specifications integrating the NMCS2 over IP for improved communications services while retaining the NMCS2 over RS482 for legacy installations.

The MS4 is manufactured from 6x modular enclosures with standardised components. The MS4 can be converted into an MS4R by removing the middle enclosures.



SPECIFICATIONS

PRODUCT	MS4
MODEL NO	J1-D-1108-MA-100
RESOLUTION	192 X 128
PIXEL PITCH	20mm
DISPLAY SIZES	MAIN DISPLAY: 3840mm (W) X 2560mm (H)
OVERALL ENCLOSURE SIZE	3075mm (H) X 4355mm (W) X 320mm (D)
ESTIMATED MASS	750kg
CONTINUOUSLY VARIABLE DIMMING LEVELS	YES
ENCLOSURE MATERIAL	MARINE-GRADE ALUMINIUM
INGRESS PROTECTION	IP65
COMMUNICATIONS	RJ45 (NMCS2 OVER IP) / RJ45 (DIAGNOSTICS) / RS485 (NMCS2 OVER RS485)
POWER SUPPLY	230V AC
LED DISPLAY PANEL	SMD 3-IN-1 FULL-COLOUR RGB LENS MODULES (MAIN DISPLAY)
OPERATING TEMP	-15°C TO +70°C
CONTROL SYSTEMS	NATIONAL HIGHWAYS TELECOMMUNICATIONS NETWORK (NMCS2 & RMAS)

PLEASE NOTE MOST DETAILS CAN BE AMENDED BY J1-LED'S IN-HOUSE ENGINEERING TEAM TO SUIT YOUR PROJECT

MS4R

SPECIFICATION SHEET



[VIEW ON WEBSITE](#)

DESIGN & PROTOCOL COMPLIANCE

NATIONAL HIGHWAYS:

- ✓ TR1100
- ✓ TR2652
- ✓ TR2653
- ✓ TR2654
- ✓ TR2661

UK STANDARDS:

- ✓ BS EN 12966
- ✓ BS EN 12899
- ✓ BS 7671
- ✓ UMSUG

KEY FEATURES

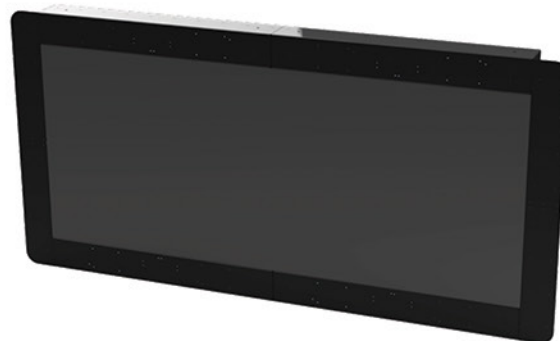
The MS4R LED display utilises full-colour RGB panels

(SMD 3-in-1 Lens Modules) for displaying dynamic information to motorists.

This high-resolution, multi-colour availability provides enhanced viewing clarity with excellent control over a broad spectrum of colours.

The J1-LED MS4 is designed and manufactured to the latest National Highways specifications integrating the NMCS2 over IP for improved communications services while retaining the NMCS2 over RS482 for legacy installations.

The MS4R is manufactured from 4x modular enclosures with standardised components. The MS4R can be converted into an MS4 by 2x enclosures into the middle section.



SPECIFICATIONS

PRODUCT	MS4R
MODEL NO	J1-D-1109-MA-100
RESOLUTION	192 X 80
PIXEL PITCH	20mm
DISPLAY SIZES	MAIN DISPLAY: 3840mm (W) X 1600mm (H)
OVERALL ENCLOSURE SIZE	2115mm (H) X 4355mm (W) X 320mm (D)
ESTIMATED MASS	530kg
CONTINUOUSLY VARIABLE DIMMING LEVELS	YES
ENCLOSURE MATERIAL	MARINE-GRADE ALUMINIUM
INGRESS PROTECTION	IP65
COMMUNICATIONS	RJ45 (NMCS2 OVER IP) / RJ45 (DIAGNOSTICS) / RS485 (NMCS2 OVER RS485)
POWER SUPPLY	230V AC
LED DISPLAY PANEL	SMD 3-IN-1 FULL-COLOUR RGB LENS MODULES (MAIN DISPLAY)
OPERATING TEMP	-15°C TO +70°C
CONTROL SYSTEMS	NATIONAL HIGHWAYS TELECOMMUNICATIONS NETWORK (NMCS2 & RMAS)

PLEASE NOTE MOST DETAILS CAN BE AMENDED BY J1-LED'S IN-HOUSE ENGINEERING TEAM TO SUIT YOUR PROJECT

MS1 - TYPE 212

SPECIFICATION SHEET



DESIGN & PROTOCOL COMPLIANCE

NATIONAL HIGHWAYS:	UK STANDARDS:
✓ TR1100	✓ BS EN 12966
✓ TR2652	✓ BS EN 12899
✓ TR2653	✓ BS 7671
✓ TR2654	✓ UMSUG
✓ TR2655	

KEY FEATURES

LED display utilises full-colour RGB panels (SMD 3-in-1 Lens Modules) for displaying dynamic information to motorists. This high-resolution, multi-colour availability provides enhanced viewing clarity with excellent control over a broad spectrum of colours.

The J1-LED MS1 is designed and manufactured to the latest National Highways specifications integrating the new NMCS2 over IP for improved communications services while retaining the NMCS2 over RS482 for legacy installations.

The J1-LED MS1 is designed to be mounted to new and legacy gantry installations. The structure located on the rear of the enclosure uses the same mounting points as the legacy MCX0043 X-Frame.



SPECIFICATIONS

PRODUCT	MS1 - TYPE 212
MODEL NO	J1-D-1104-MA-200
RESOLUTION	32 X 32
PIXEL PITCH	20mm
DISPLAY SIZES	MAIN DISPLAY: 640mm X 640mm 4X DUAL COLOUR LANTERNS: 125mm
OVERALL ENCLOSURE SIZE (MM)	1595mm (W) X 715mm (H) X 215mm (D)
ESTIMATED MASS (KG)	45kg
CONTINUOUSLY VARIABLE DIMMING LEVELS	YES
ENCLOSURE MATERIAL	MARINE-GRADE ALUMINIUM
INGRESS PROTECTION	IP65
COMMUNICATIONS	RJ45 (NMCS2 OVER IP) / RJ45 (DIAGNOSTICS) / RS485 (NMCS2 OVER RS485)
POWER SUPPLY	230V AC
LED DISPLAY PANEL	SMD 3-IN-1 FULL-COLOUR RGB LENS MODULES
OPERATING TEMP	-15°C TO +70°C
MOUNTING ARRANGEMENT	TO SUIT A STANDARD BALL JOINT GANTRY MOUNT
CONTROL SYSTEMS	NATIONAL HIGHWAYS TELECOMMUNICATIONS NETWORK (NMCS2 & RMAS)

PLEASE NOTE MOST DETAILS CAN BE AMENDED BY J1-LED'S IN-HOUSE ENGINEERING TEAM TO SUIT YOUR PROJECT

MS1 - Type 213

SPECIFICATION SHEET



[VIEW ON WEBSITE](#)

DESIGN & PROTOCOL COMPLIANCE

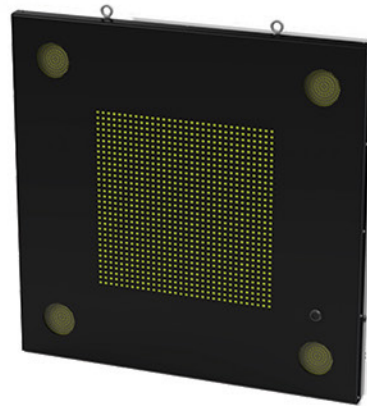
<u>NATIONAL HIGHWAYS:</u>	<u>UK STANDARDS:</u>
✓ TR1100	✓ BS EN 12966
✓ TR2652	✓ BS EN 12899
✓ TR2653	✓ BS 7671
✓ TR2654	✓ UMSUG
✓ TR2655	

KEY FEATURES

LED display utilises full-colour RGB panels (SMD 3-in-1 Lens Modules) for displaying dynamic information to motorists. This high-resolution, multi-colour availability provides enhanced viewing clarity with excellent control over a broad spectrum of colours.

The J1-LED MS1 is designed and manufactured to the latest National Highways specifications integrating the new NMCS2 over IP for improved communications services while retaining the NMCS2 over RS482 for legacy installations.

The J1-LED MS1 is designed to be mounted to new and legacy Type 75 post installations. The structure located on the rear of the enclosure uses the same mounting points as the legacy MCX0202 X-Frame.



SPECIFICATIONS

PRODUCT	MS1 - TYPE 213
MODEL NO	J1-D-1104-MA-300
RESOLUTION	32 X 32
PIXEL PITCH	20mm
ACTIVE DISPLAY SIZE	MAIN DISPLAY: 640mm X 640mm 4X DUAL COLOUR LANTERNS: 125mm
OVERALL ENCLOSURE SIZE	1250mm (H) X 1250mm (W) X 160mm (D)
ESTIMATED MASS (KG)	45kg
CONTINUOUSLY VARIABLE DIMMING LEVELS	YES
ENCLOSURE MATERIAL	MARINE-GRADE ALUMINIUM
INGRESS PROTECTION	IP65
COMMUNICATIONS	RJ45 (NMCS2 OVER IP) / RJ45 (DIAGNOSTICS) / RS485 (NMCS2 OVER RS485)
POWER SUPPLY	230V AC
LED DISPLAY PANEL	SMD 3-IN-1 FULL-COLOUR RGB LENS MODULES
OPERATING TEMP	-15°C TO +70°C
MOUNTING ARRANGEMENT	TO SUIT A TYPE 75 ON RAMP POST
CONTROL SYSTEMS	NATIONAL HIGHWAYS TELECOMMUNICATIONS NETWORK (NMCS2 & RMAS)

PLEASE NOTE MOST DETAILS CAN BE AMENDED BY J1-LED'S IN-HOUSE ENGINEERING TEAM TO SUIT YOUR PROJECT

Advanced Motorway Indicator (AMI)

SPECIFICATION SHEET



[VIEW ON WEBSITE](#)

DESIGN & PROTOCOL COMPLIANCE

NATIONAL HIGHWAYS:

- ✓ TR1100
- ✓ TR2652
- ✓ TR2653
- ✓ TR2654
- ✓ TR2656

UK STANDARDS:

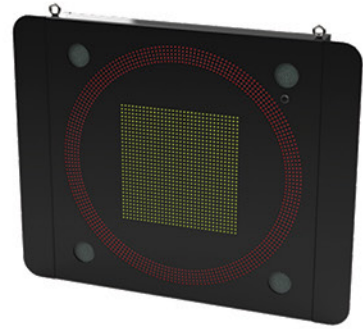
- ✓ BS EN 12966
- ✓ BS EN 12899
- ✓ BS 7671
- ✓ UMSUG

KEY FEATURES

LED display utilises full-colour RGB panels (SMD 3-in-1 Lens Modules) for displaying dynamic information to motorists. This high-resolution, multi-colour availability provides enhanced viewing clarity with excellent control over a broad spectrum of colours.

The J1-LED AMI is designed and manufactured to the latest National Highways specifications integrating the new NMCS2 over IP for improved communications services while retaining the NMCS2 over RS482 for legacy installations.

The J1-LED AMI is designed with an interchangeable mounting brackets therefore allowing for seamless installation on new and existing gantries.



SPECIFICATIONS

PRODUCT	ADVANCED MOTORWAY INDICATOR (AMI)
MODEL NO	J1-D-1110-MA-100
RESOLUTION	32 X 32
PIXEL PITCH	20mm
DISPLAY SIZES	MAIN DISPLAY: 640mm X 640mm 4X DUAL COLOUR LANTERNS: 125mm RED RING: 1300mm OUTER DIAMETER
OVERALL ENCLOSURE SIZE	1480mm (H) X 1840mm (W) X 165mm (D)
ESTIMATED MASS	90kg
CONTINUOUSLY VARIABLE DIMMING LEVELS	YES
ENCLOSURE MATERIAL	MARINE-GRADE ALUMINIUM
INGRESS PROTECTION	IP65
COMMUNICATIONS	RJ45 (NMCS2 OVER IP) / RJ45 (DIAGNOSTICS) / RS485 (NMCS2 OVER RS485)
POWER SUPPLY	230V AC
LED DISPLAY PANEL	SMD 3-IN-1 FULL-COLOUR RGB LENS MODULES (MAIN DISPLAY)
OPERATING TEMP	-15°C TO +70°C
MOUNTING ARRANGEMENT	INTERCHANGABLE BRACKETS TO SUIT NEW AND LEGACY INSTALLATIONS
CONTROL SYSTEMS	NATIONAL HIGHWAYS TELECOMMUNICATIONS NETWORK (NMCS2 & RMAS)

PLEASE NOTE MOST DETAILS CAN BE AMENDED BY J1-LED'S IN-HOUSE ENGINEERING TEAM TO SUIT YOUR PROJECT

PORTABLE VARIABLE MESSAGE SIGN (pVMS)

SPECIFICATION SHEET

DESIGN & PROTOCOL COMPLIANCE

- ✓ The Road Vehicles (Construction and Use) Regulations 1986
- ✓ The Road Vehicles Lighting Regulations 1989
- ✓ BS EN 12966 Variable message traffic signs
- ✓ 1991 Eurocode - General Actions



[VIEW ON WEBSITE](#)

KEY FEATURES

This easy-up trailer was designed for agility in the urban environment. Its sustainable design with reduced footprint and solar power mean that it can be deployed in a wide variety of scenarios within built-up and congested areas.

Made for single person deployment, it can be towed by a standard vehicle, and the innovative quick release solar panel array simplifies deployment and minimises operator error during setup or stowing.

Built with a fully galvanised trailer chassis, and marine grade aluminium housing, the unit is designed to withstand a wide range of ambient temperatures and corrosive environments.

Display options include time / date / temp, pre-scheduling of messages, scrolling text and page effects, all via local or remote control.



SCAN FOR

SPECIFICATIONS

MODEL NO	J1-D-1202
ENCLOSURE SIZE	1815mm (W) x 1170mm (H)
DISPLAY SIZE	1600mm (W) x 960mm (H)
RESOLUTION (PIXELS)	80 x 48
NET WEIGHT (KG)	740kg
PITCH	20mm
TOWING SIZE	2330mm (L) X 1450mm (W) X 2590mm (H)
DEPLOYED SIZE	2100mm (L) X 1825mm (W) X 3620mm (H)
DIMMING LEVELS	16
MARINE GRADE ALUMINIUM ENCLOSURE	●
INGRESS PROTECTION IP65	●
SETUP MECHANISMS	HYDRAULIC RAM
PIXEL CONFIGURATION	SMD 3-IN-1 FULL-COLOUR RGB LENS MODULES
POWER SUPPLY	12vDC, 145W SOLAR, STAND ALONE, 4 SOLAR PANELS
OPERATING TEMP	-15°C TO +70°C
CONTROL SYSTEMS	ONSITE OR REMOTE – LOCAL LAPTOP, STREAMS, ITS HOST
COMMUNICATIONS	STAND-ALONE REMOTE 4G, REMOTE 4G MANAGED SERVER

PORTABLE TRAFFIC LIGHT

PRODUCT SPECIFICATION SHEET



[VIEW ON WEBSITE](#)

KEY FEATURES

Purpose designed & built with an innovative tripod design using quick-release latches that allow for rapid and easy onsite setup – even with gloves on.

Compact modular unit enables easy transportation in two separate carry bags. Ergonomic handle for easy setup and knockdown.

Ultra-light weight, yet robust design exceeds stringent wind loading requirements laid out by the Department of Main Roads. Originally designed and constructed in Australia to last longer and withstand the harshest environmental conditions.

Touch-screen LCD controller for safe and quick operation and monitoring from a distance. Radio Link using High Gain aerials. Links up to 2 units, with channel hopping and channel isolation to limit interference.

Ultra long-life battery can be recharged using vehicle, mains or solar power.



SPECIFICATIONS

PRODUCT	PORTABLE TRAFFIC LIGHT (PTL)
MODEL NO	0111-1101-0001
LANTERN SIZE	200mm
NET WEIGHT	20kg
FOLDED SIZE	HEAD UNIT: 550mm (W) x 1065mm (H) x 370mm (D) TRIPOD (PACKED): 240mm (W) x 1060mm (H) x 240mm (D) BATTERY UNIT: 207mm (W) X 225mm (H) 161mm (D)
SETUP SIZE	HEIGHT = 2565mm TO 2865mm (ADJUSTABLE HEIGHT) 1580mm (W) x 1370mm (D)
DIMMING LEVELS	1
ENCLOSURE	MARINE GRADE ALUMINIUM
INGRESS PROTECTION (HAND HELD CONTROLLER)	IP65
POWER SUPPLY	NOMINAL 12vDC RECHARGEABLE BATTERY
BATTERY LIFE	MINIMUM 8 HOUR RUN TIME
OPERATING TEMP	-10°C TO +70°C
COMMUNICATIONS	HIGH GAIN OMNI DIRECTIONAL ANTENNAS, RELIABLE SIGNAL STRENGTH >1KM
SETUP MECHANISMS	MANUAL, QUICK RELEASE LATCH RAISE AND LOWER + GROUND ANGLE STABILISATION

MIDAS OUTSTATION

SPECIFICATION SHEET



[VIEW ON WEBSITE](#)

DESIGN & PROTOCOL COMPLIANCE

- ✓ TR1100K - General Technical Specification
- ✓ TR2169J - NMCS2 MIDAS Outstation Specification
- ✓ TR2130G - Environmental Test Methods
- ✓ CE marking
- ✓ RoHS Compliance
- ✓ EMC Compliance to EN 50293

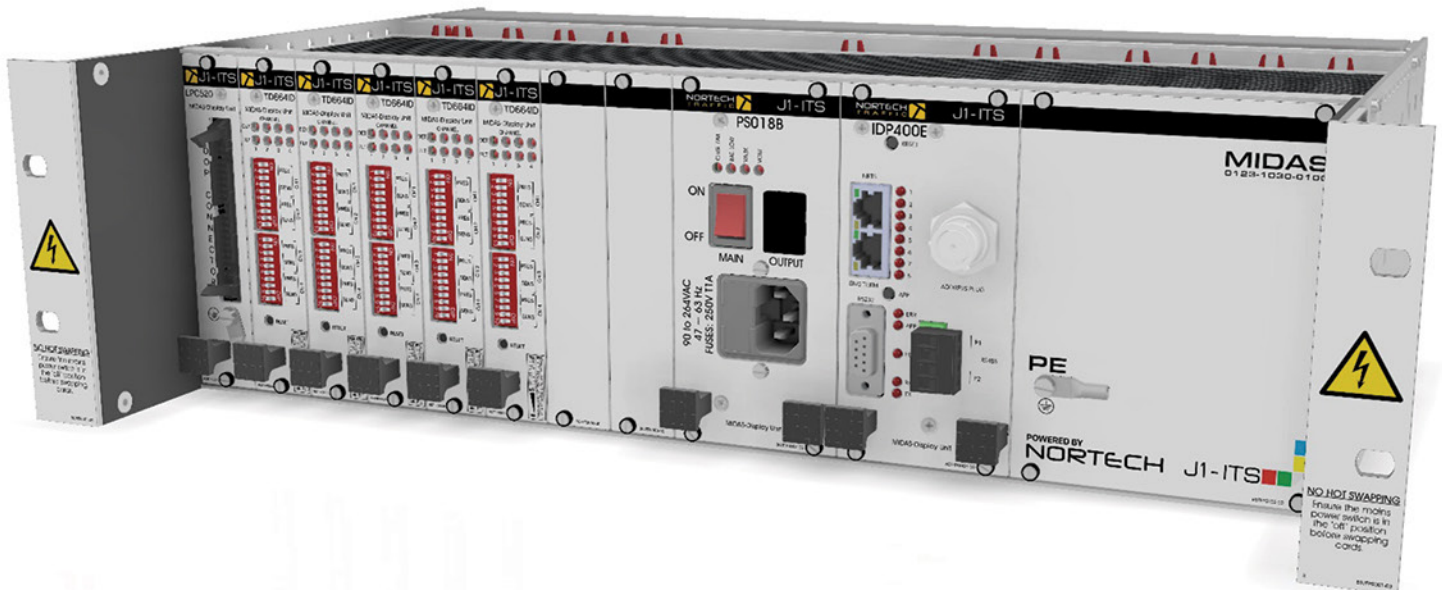
KEY FEATURES

J1-LED The J1-LED MIDAS Outstation Intelligent Vehicle Detector is a reliable and accurate vehicle detection system with low maintenance costs.

The MIDAS collects, stores and reports on multi-lane traffic data comprising of individual vehicle data events or average flow data relating to traffic volume, speed, length category, vehicle headway and percentage occupancy. It can monitor 28 loops (14 lanes) at vehicle speeds up to 125mph. An external host computer is able to access information by interrogating the processor via the various communications options available on the front panel. Remote access via our easy-to-use web browser interface allows rapid configuration, real-time incident detection, real-time viewing of traffic and host communication data, extensive fault diagnostics and logs. The MIDAS also supports the MIDAS NMCS2 communications protocol for configuration and vehicle data.

APPLICATIONS

- Incident Monitoring
- Vehicle Classification
- Statistical Flow Analysis
- Vehicle Data Recording



MIDAS OUTSTATION

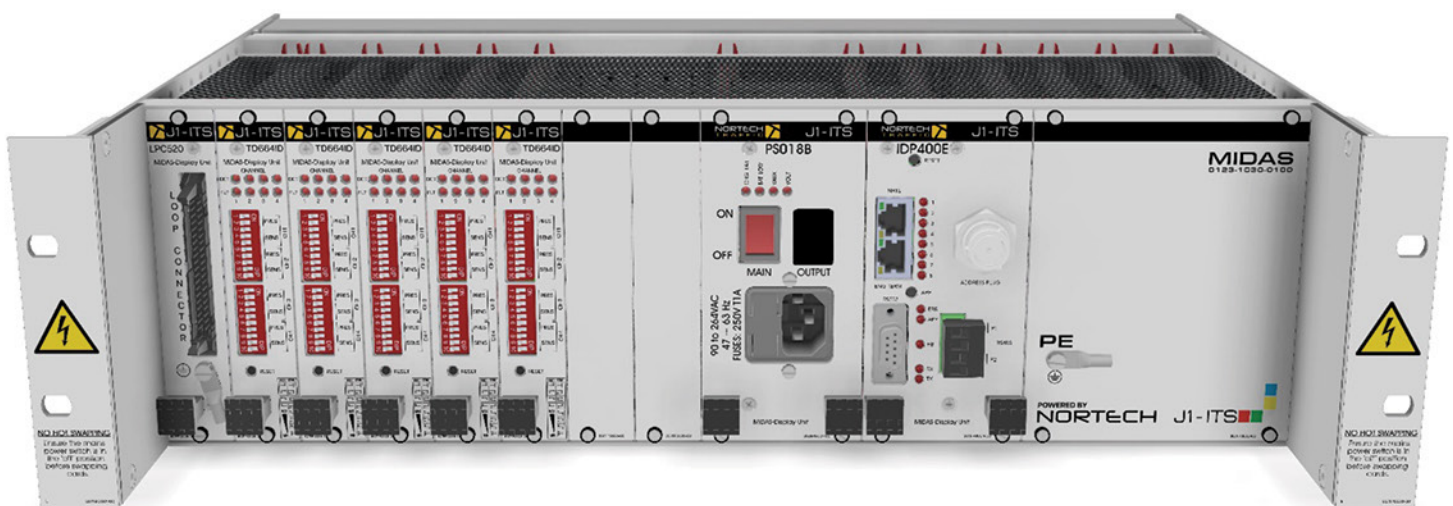
SPECIFICATION SHEET



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SPECIFIC FEATURES

- Advanced Detectors** The MIDAS uses the already proven TD664 detector incorporating Automatic Frequency Selection (AFS). The AFS circuitry on each 4-channel card evaluates 21 possible frequency shift selections and automatically chooses the best frequency setting on start-up.
- Comprehensive Logging** The MIDAS logs every event that occurs and classifies it as a vehicle event, communications event, fault, alarm, debug, info or critical issue. This data is available on a real time Live View via the web interface. It is also written to file and can be stored in onboard Flash memory, to an external USB drive, or automatically uploaded to an FTP server.
- Traffic Data Options** Traffic data comprises average data calculated over pre-determined intervals and includes vehicle count, speed, volume, headway and occupancy. Optionally individual vehicle reporting can be selected which provides a record of every vehicle showing its lane number, speed, length and headway. Loops can be configured as stand-alone loops or paired into lanes to suit the application and required data.
- Ethernet/Serial Connectivity** The MIDAS has an Ethernet port for Upstream connectivity using the MIDAS NMCS2 protocol. A second Ethernet port can be used for on-site web browser access, or an Engineers Terminal. The web browser interface allows equipment interrogation, verification and setup of all operating parameters, real-time monitoring of traffic data and communications, and viewing and downloading of traffic data and logs.
- Three serial ports are provided to support the MIDAS Transponder connection, the Outstation Auxiliary Link, and the Engineer's Terminal



MIDAS OUTSTATION

SPECIFICATION SHEET



[VIEW ON WEBSITE](#)

SPECIFICATIONS

Model No:	J1-D-1300-100
Power requirements:	90-260VAC input <i>Intelligent PSU monitoring with open collector outputs and visual indicators for mains failure</i>
Enclosure size:	19" 3U high aluminum rack with mounting ears <i>Designed for seamless swap out in <15 minutes</i>
Main connector:	Power inlet <i>1x IEC 63020 Type C14 inlet socket</i>
Uplink & Engineering terminal Connectors:	Ethernet Ports <i>1x RJ45 connector - Outstation to interface IP Link / Auxiliary IP link</i> <i>1x RJ45 connector - Engineering Terminal</i> RS 485 Ports <i>1x Dinkle connector (P1) -Outstation Auxiliary link</i> <i>1x Dinkle connector (P2) - Outstation Transponder Link</i> RS232 Port <i>1x DB9 male connector - Engineer's Terminal</i> Loop Detector Interface (with lightning protection) <i>1x IDC 40 Way Male connector with Ejector locks</i>
Configuration connectors:	Electrical Connection Plug (ECP) <i>1x Electrical Connection Port (ECP)</i>
Detectors:	Up to 7 x TD664 detectors, supporting up to 28 loops (14 lanes). <i>All detector features and configuration can be accessed straight from the web interface, or configured via the MIDAS NMCS2 communications protocol</i>
MIDAS Algorithms	<ul style="list-style-type: none">- Traffic statistics- HIOCC1- HIOCC2- Flow Threshold Alert- Speed Threshold Alert- Vehicle Presence Alert
Data Logging	Live log view, onboard Flash storage.
Measured parameters	Vehicle count, speed, length, headway, occupancy.
Communication Interfaces	Supports Serial or Ethernet link to an upstream host processor.
Device Software Updates	Supports updates in the field via Linux packages, signed with GPG Security keys. Software updates can be done via the webpage or using the provided RMAS interface. (As per specification TR2597)

CONTACT INFORMATION

For further information please do not hesitate to contact the J1-LED Technical Support team:

E: info@j1led.com

ITS HOST

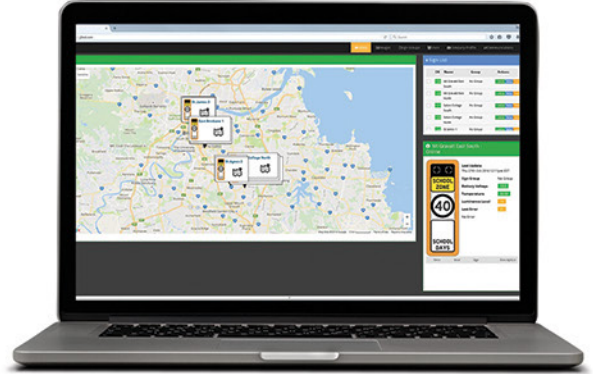
PRODUCT SPECIFICATION SHEET



[VIEW ON WEBSITE](#)

APPLICATIONS

- ✓ Start/stop scheduling
- ✓ GPS location
- ✓ Solar input
- ✓ Battery bank voltage
- ✓ Device status



KEY FEATURES

ITS host offers unprecedented remote monitoring ability, allowing operators to take full advantage of smart features, pre-empt issues before they occur, & securely delegate user access all via our secure online web portal. Monitor the units remotely over the web, from any web-enabled device. Set light phases and timing, receive text and email notifications (available with subscription service only). As battery voltage levels wane, this can be clearly observed via the voltage log trend graph, while the battery indicator button automatically changes to orange to indicate an issue. Similarly, solar voltage, light output, and historical fault logs all assist in reliably keeping your device out in the field.



ABUSS

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