Encrypted Link Bonder & Ai Based Load Balancer

7G Fuse

LAN1 | LAN2 | LAN3/WAN1 | LAN4/WAN2 | HDMI | USB 1 | USB 2

SIM 1A | SIM 2A | SIM 3A | SIM4A

A GND B
TX GND RX

CONSOLE | DC 12V | ON/OFF

SIM 1B | SIM 2B | SIM 3B | SIM 4B

**8 SIM's & 2 WAN Ports
~2.5 Gbps Throughput**

LAN
4X 2x 2.5 Gigabit LAN
2x User selectable
2.5 Gigabit LAN

WAN
2X 2.5 Gigabit WAN

CONSOLE
1X USB Type C

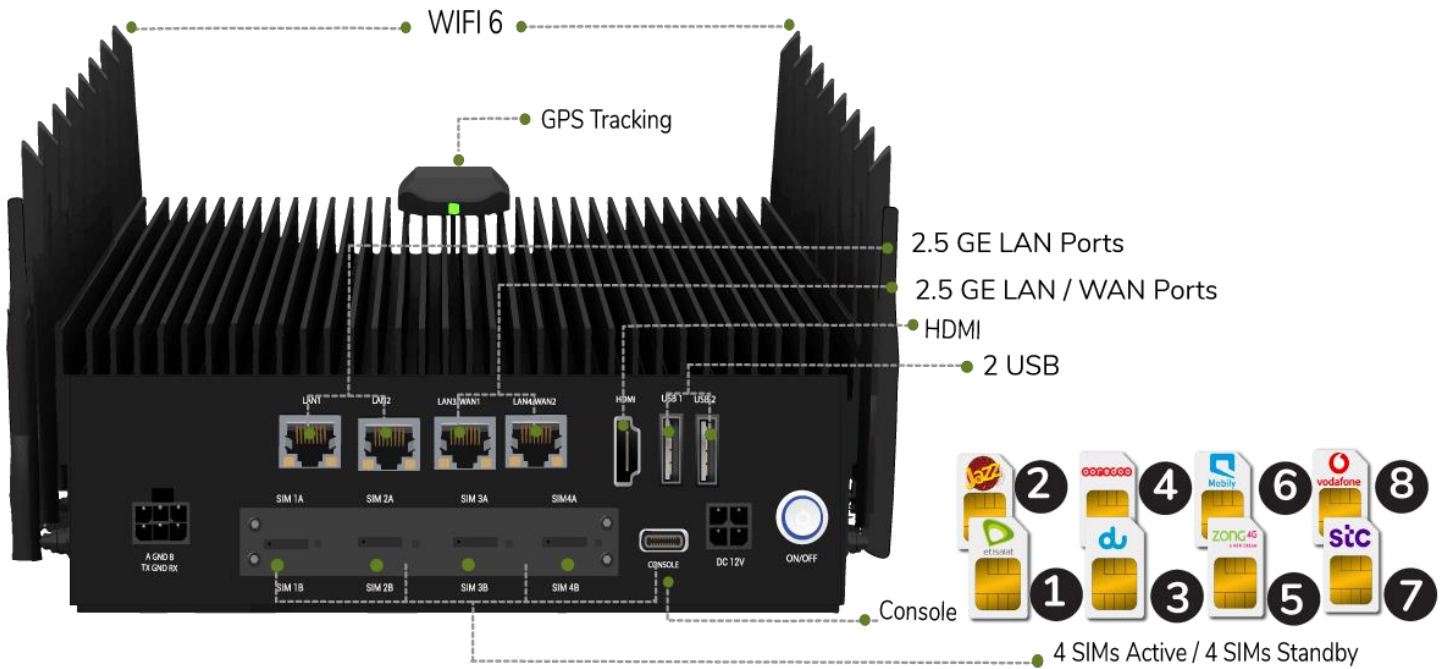## SIM SLOTS
8X 4 ACTIVE & 4 STANDBY

AI BASED
LOAD BALANCER

LOAD BALANCING
INTERNET THROUGHPUT UP TO ~**2.5 Gbps**

VPN BONDING
AES-256 ENCRYPTION
PRIVATE APN | MPLS | ADSL
THROUGHPUT UP TO ~ **1 Gbps**

WIFI 6
Supports IEEE 802.11ax/ac/a/b/g/n

4 x 4 MIMO
ANTENNAS

MOBILE 110

7G Fuse

WIFI 6

GPS Tracking

2.5 GE LAN Ports
2.5 GE LAN / WAN Ports
HDMI
2 USB

LAN1 DVI2 LAN3 WAN1 LAN4 WAN2 HDMI USB1 USB2

A GND B
TX GND RX

SIM 1A SIM 2A SIM 3A SIM4A

SIM 1B SIM 2B SIM 3B SIM 4B CONSOLE DC 12V ON/OFF

Console

4 SIMs Active / 4 SIMs Standby

8 SIM's & 2 WAN Ports
~2.5 Gbps Throughput

QOS
TRAFFIC SHAPING

REAL TIME
MONITORING

4G & 5G
ENABLED
4G & 5G

MULTICASTING
OPTIMIZED VIDEO TRAFFIC

REPORTS
BANDWIDTH USAGE &
DATA CONSUMPTION

RUGGEDIZED
FANLESS DESIGN
~ -10 to 60 °C

2X **USB**
USB PORT

1X **HDMI**
HDMI PORT

1X A GND B
TX GND RX

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MOBILE 110

7G Fuse

SPECIFICATIONS		
LAN INTERFACE	2 x 2.5 Gigabit Ethernet Port 2 x User selectable 2.5 Gigabit LAN	
WAN INTERFACE	2 x 2.5 Gigabit Ethernet Port 1 x USB-To-Ethernet Port 4 x LTE-A Cellular Modems	
WI-FI INTERFACE	Dual Radio Channel (2.4 GHz & 5 GHz) 802.11 b/g/n/ax Wi-Fi 6, 4X4 MIMO	
USB	2 x USB 3.0 Port for USB-to-Ethernet Connector	
CELLULAR BANDS	LTE - FDD	B1 / B2 / B3 / B4 / B5 / B7 / B8 / B12 / B13 / B14 / B17 / B18 / B19 / B20 / B25 / B26 / B28 / B291 / B30 / B321 / B66
	LTE-TDD	B38 / B39 / B40 / B41 / B42 / B43 / B461 (LAA) / B48 (CBRS)
SIM SLOTS	4 x Dual Nano SIM Slots (4 Active & 4 Standby - Total 8 SIM Slots)	
ANTENNA CONNECTORS	16 x SMA SIM Connectors (4x4 MIMO for each SIM) 1 x SMA GPS Connector 3 x RP-SMA Wi-Fi Connectors	
CONSOLE	USB Type C	
INTERNET LOAD BALANCING THROUGHPUT	~2.5 Gbps	

MOBILE 110

BUILT-IN GPS	Active Antenna with Precise GPS Location
serial IO port Uart (RS485/RS232)	1
DESIGN	Ruggedized & Fanless Design with Aluminium Heatsink
DIMENSIONS	18 x 17 x 6.5 W x L x H
WEIGHT	~ 3 Kg
OPERATING TEMPERATURE	~ -10 to 60 °C
POWER	60 Watts —12V / 5A DC Input

CERTIFICATIONS

CE, RoHS, FCC
E-Mark (Motor Vehicle)
EN 61373 Shock and Vibration Resistance

PACKAGE CONTENTS

- 1 x Mobile 110+4G
- 16 x LTE Antennas
- 4 x Dual Band Wi-Fi Antennas
- 1x 12V3A 4-Pin Power Supply
- Mounting Kit

MOBILE 110

8 SIMs & 2 WAN Ports
4 Active & 4 Standby

5G

SPECIFICATIONS

LAN INTERFACE	2 x 2.5 Gigabit Ethernet Port 2 x User selectable 2.5 Gigabit LAN	
WAN INTERFACE	2 x 2.5 Gigabit Ethernet Port 1 x USB-To-Ethernet Port 4 x 5G Modems with Redundant SIM Slots	
WI-FI INTERFACE	Dual Radio Channel (2.4 GHz & 5 GHz) 802.11 b/g/n/ax Wi-Fi 6, 4X4 MIMO	
USB	2 x USB 3.0 Port for USB-to-Ethernet Connector	
CELLULAR BANDS	5G NR	n1/2/3/5/7/8/12/20/25/28/38/40/41/48/66/71/77/78/79
	LTE-FDD	B1/2/3/4/5/7/8/12(17)/13/14/18/19/20/25/26/28/29/30/32/66/71
	LTE-TDD	B34/38/39/40/41/42/43/48; LAA: B46
SIM SLOTS	4 x Dual Nano SIM Slots (4 Active & 4 Standby - Total 8 SIM Slots)	
5G CELLULAR DATA RATE (DL/UL)	5G SA	Max. 4.2 Gbps (DL)/Max. 450 Mbps (UL)
	5G NSA	Max. 5 Gbps (DL)/Max. 650 Mbps (UL)
ANTENNA CONNECTORS	16 x SMA SIM Connectors (4x4 MIMO for each SIM) 1 x SMA GPS Connector 3 x RP-SMA Wi-Fi Connectors	
CONSOLE	USB Type C	

MOBILE 110

INTERNET LOAD BALANCING THROUGHPUT	~2.5 Gbps
serial IO port Uart (RS485/RS232)	1
BUILT-IN GPS	Active Antenna with Precise GPS Location
DESIGN	Ruggedized & Fanless Design with Aluminium Heatsink
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- Mounting Kit

TECHNOLOGY

DYNAMIC LOAD BALANCING

An intelligent load-balancing technology responsible for performing real-time health checks on all Internet connections and routing traffic (per packet) via assigned priorities using the following dynamic load-balancing algorithms.

Latency Based Load Balancing Algorithm

In this mode, the load balancer assigns a higher priority to the interfaces with the lowest latency.
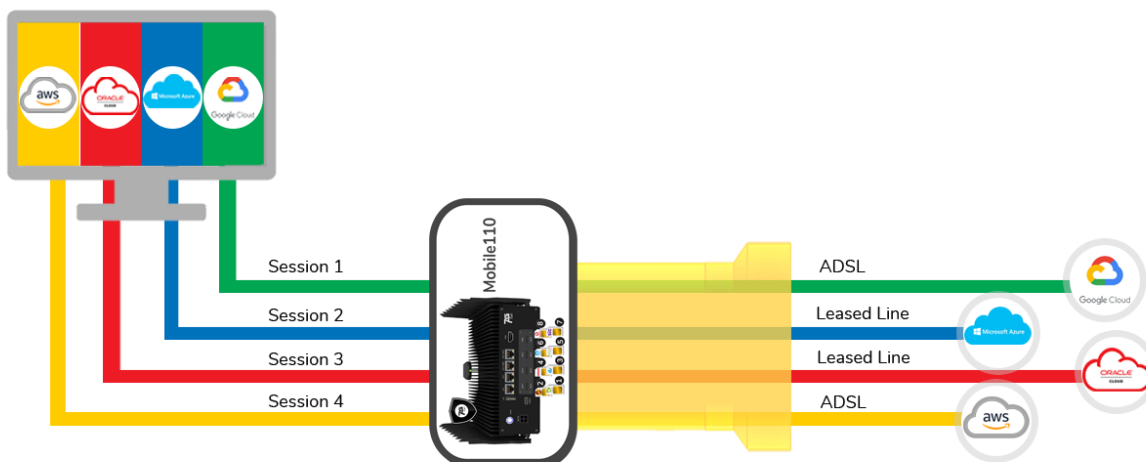
Bandwidth Based Load Balancing Algorithm

In this mode, the load balancer assigns priorities based on bandwidth. There are 2 configurable modes for this.

Most Bandwidth: The interface with the highest bandwidth is assigned a higher priority.

OR

Least Bandwidth: The interface with the lowest bandwidth is assigned a higher priority.

VPN BONDING

It establishes an encrypted VPN tunnel between its peer devices and ensures that all WAN connections participate in the data transfer between the sites and combine all Internet connections into a single encrypted virtual tunnel.

As a result, VPN Bonding increases the overall bandwidth throughput of the VPN tunnel and minimizes the impact of tunnel congestion for higher data transfer between sites. It also reduces downtime by a factor of three.

Along with VPN bonding, it also provides multiple traffic scheduling algorithms to meet different scenarios and requirements. The sole purpose of the traffic scheduling algorithm is to decide in which order the data packets should be transmitted.

MOBILE 110

FEATURES

Real-time Dashboard

Single pane for monitoring the entire device. The dashboard shows the committed Internet throughput as well as the bandwidth and data consumption of the individual Internet connections in real time.

Real-time Charts

Graphical representation of link utilization using diagrams (line and bar charts). Aggregated and individual upload and download bandwidth of the interfaces, the number of sessions created over time.

Reports

Enables the user to retrieve interactive reports on Bandwidth, Data Consumption, Power Consumption and Session Counts over the specified date range at both an aggregated and individual levels via the selected interface.
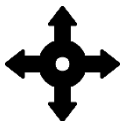
Traffic Shaping

Increases the efficiency of overall Internet usage by setting up traffic shaping policies that help users categorize and prioritize specific traffic. It also helps in limiting bandwidth for specific protocols, IP or subnets to avoid Internet exhaustion or congestion.

Built-In Firewall

Segregates interfaces into zones and filters Internet traffic passing through the device using a stateful Layer 3 firewall (subnet, IP and ports) for Internet security and threat prevention.

VPN Bonding Test

Special and customized tool for checking the actual bandwidth achieved by VPN Bonding.

Once the VPN is established, the user can initiate the bonding test between the peers to analyse the real-time bandwidth over the VPN.

MOBILE 110

7G Fuse

FEATURES

BTS & Band Selection

Fine-tuning of SIM cards to manually select cellular base station and frequency bands with less congestion and distance to achieve maximum speeds. Forced switching of SIM cards to 3G when 4G performance is poor.

Quota Management

A unique feature to limit data usage via SIM cards in Mobile 110, ensuring that the user's data traffic does not exceed the quota configured for the SIM card to avoid excessive usage and resetting data limits on a monthly basis for further usage.

GPS Tracking

Enables real-time tracking of the location coordinates of Mobile 110 devices via the Central Management Software. It allows the user to monitor the activity of the devices in mobile vehicles or remote locations and ensure their security.

Multiple Dynamic DNS

Provides a networked device with the ability to notify a global DNS server to change the dynamic Public IP address assigned to a DNS record in real time.

User Management

Enables privileges to be assigned to users based on their role/designation in the organization, which restricts unauthorized changes to key configurations.

SNMP

7G Fuse devices support the Simple Network Management Protocol, which can be used to monitor and manage the devices in a network.