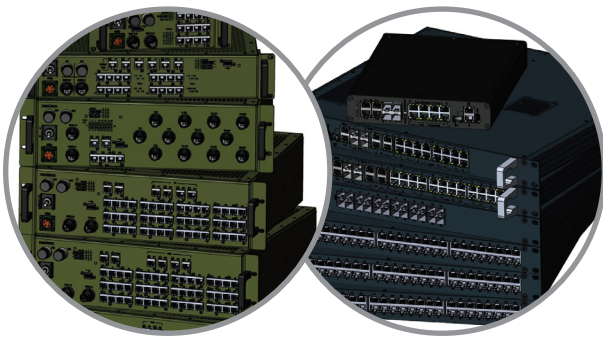


# NATIONAL IP ROUTER FAMILY

MILITARY AND INDUSTRIAL TYPE  
ROUTING DEVICES



Military Configuration / Port Numbers	Industrial Configuration / Port Numbers
8x10/100/1000Base-T + 2x1GE SFP/Combo; 8xPoE+	8x10/100/1000Base-T + 2x1GE SFP/Combo; 8xPoE+
8x10/100/1000Base-T + 4x10GE SFP+/Combo; 8xPoE+	8x10/100/1000Base-T + 4x10GE SFP+/Combo; 8xPoE+
16x10/100/1000Base-T + 4x1GE SFP/Combo; 16xPoE+	16x10/100/1000Base-T + 4x1GE SFP/Combo; 16xPoE+
16x10/100/1000Base-T + 4x10GE SFP+/Combo; 16xPoE+	16x10/100/1000Base-T + 4x10GE SFP+/Combo; 16xPoE+
24x10/100/1000Base-T + 4x1GE SFP/Combo; 24xPoE+	24x10/100/1000Base-T + 4x1GE SFP/Combo; 24xPoE+
24x10/100/1000Base-T + 4x10GE SFP+/Combo; 24xPoE+	24x10/100/1000Base-T + 4x10GE SFP+/Combo; 24xPoE+
24xSFP + 4x10G SFP+/Combo	24xSFP + 4x10G SFP+/Combo
48x10/100/1000Base-T + 4x1GE SFP/Combo	48x10/100/1000Base-T + 4x1GE SFP/Combo
48x10/100/1000Base-T + 4x10GE SFP+/Combo	48x10/100/1000Base-T + 4x10GE SFP+/Combo
48x10/100/1000Base-T + 2x10GE SFP+/Combo (WAN Stacking; 4x10GE SFP+)	48x10/100/1000Base-T + 2x10GE SFP+/Combo (WAN Stacking; 4x10GE SFP+)
8x10/100/1000Base-T + 2x1GE SFP/Combo; 8xPoE+, kriptomlu	



# NATIONAL IP ROUTER FAMILY

## MILITARY AND INDUSTRIAL TYPE ROUTING DEVICES

Developed within the scope of ASELSAN's second generation National IT Hardware Devices, new military / commercial / industrial featured National Routers are capable of routing at speeds between 96Gbps - 300Gbps in the network hierarchy, Backbone, Distribution and Access levels.

Devices developed within the scope of the National Router Family are listed in Table 1. The mechanical structure of the devices is modular and can be easily stacked and used for different number of interface (port) needs. The largest configuration, 48-port military device has dimensions of 133.35mm x 438.15mm x 476.25mm (H x W x D) and rack height of 3RU. The weight of the device is 15kg for the 48 Port military router, which is the heaviest configuration.

Military Type National Routers comply with the MIL-STD-810-G standard in terms of environmental conditions, and Commercial / Industrial Type National Routers comply with the IEC 60068 standard in terms of environmental conditions.

### Properties of National IP Router Family

- 19 inch rack compatibility
- Ability to be powered from the city grid or an external AC energy source
- Ability to work up to 3000m above sea level
- Ability to work between  $-40^{\circ}\text{C}$  and  $+70^{\circ}\text{C}$  temperature range and 10% to 95% humidity range
- Sealing and protection at IP65 level for military devices, at IP30 level for commercial / industrial devices
- Fanless design. Natural air flow is sufficient for cooling the devices.
- At least 4.5Mpps packet processing and routing performance for 64 Byte packets
- Wirespeed operation
- All kinds of network topologies (Mesh, Star, Ring, Line, Tree etc.) can be created with the devices and there is no interruption or deficiency in the service to be provided in the system.
- All ports on the devices can work non-blocking.
- IPv4 and IPv6 protocol support and STANAG 5067 compatibility
- Ability to configure and change the MTU value for all ports separately
- 1 x 10/100 / 1000Base-T Ethernet Interface, 1 x 115.2kbitps Console Interface and 1 x USB 3.0 Interface for device management
- Static Routing, RIP, OSPF, BGP, BGP Route Reflector, MPLS (for ECRM)
- Layer 2 VPN, Tunneling Protocols (L2TPv3)
- Layer 3 VPN, Multicast and Multicast Group Management (IGMPv3, MLDv2, MSDP, PIM: SM, SSM, DM), Network Security (IPsec, IKE)
- QoS (DiffServ, STANAG 4711 and STANAG 4644 Compatibility)
- Network Manager Tools (DHCPv4/6, ICMPv4/6, DNS), Authorization Tools (RADIUS, TACACS +)
- Encrypted communication between Military Type National Routers is protected by mutual 3 Way Authentication Protocol.
- All cryptographic protocols used during the communication of devices, including the 3 Way Authentication Protocol, are designed to comply with the National Confidential level of communication.
- Crypto enabling the communication with National Confidentiality is approved by the Presidency of General Staff.
- The device conforms to the TEMPEST and COMSEC criteria determined by the Presidency of General Staff, which is the authorized approval authority.