

NetEngine 8000 F2A Service Router

Overview

NetEngine 8000 F2A is a high-density compact box router designed for the cloud era. It's feature for its 2U height, and up to 6.8T port capacity, flexible combination of up to 64 ports (400GE, 100GE ports), which is highest density in the industry. It also supports features such as SRv6, EVPN, and 1588v2 high-precision clock. The compact design of 600 mm saves precious resources, greatly reduces Capex, and protects existing investments. It is the best choice for high-density bearer in the future cloud era.



NetEngine 8000 F2A (Front)



NetEngine 8000 F2A (Rear)

Product Features

Table 2-1 lists the features of Huawei NetEngine8000 F2A router.

Features of Huawei NetEngine8000 F2A Router

Features	Description
L2	IEEE 802.1q, IEEE 802.1p, IEEE 802.3ad, IEEE 802.1ab, STP/RSTP/MSTP
L3	OSPF, RIP, IS-IS, BGP, ACL, IPv4, 6VPE
MPLS	LDP, RSVP-TE, L2VPN (VPLS, HVPLS, and VLL), L3VPN, and seamless MPLS
SRv6/EVPN	<ul style="list-style-type: none"> IS-IS for SRv6, OSPFv3 for SRv6, SRv6 TE Policy, SRv6 TE Policy Shortcut, SRv6 Flex-Algo, SRv6 SRH Compression, SRv6 Network Slicing BGP for SRv6, SRv6 BE, SBFD for SRv6 BE, SRv6 TI-LFA FRR, SRv6 middle-node protection, SRv6 micro-loop avoidance, SRv6 OAM, SRv6 SFC EVPN E-LAN/E-Line/E-Tree, EVPN L3VPN, EVPN VXLAN, PBB EVPN
Multicast	IGMP, Static Multicast Routing, PIM-SM/SSM, MBGP, NG MVPN

Features	Description
QoS	5-level HQoS
Clock	1588v2, Synchronous Ethernet
OAM	Telemetry, IFIT, BFD, NQA, RFC 2544, TWAMP

Product Specifications

Item	NetEngine 8000 F2A
Dimensions (H x W x D)	86.1 mm x 442 mm x 600 mm (3.39 in. x 17.4 in. x 23.62 in.) (2U)
Weight without packaging (full configuration)	DC: 21 kg (46.3 lb) AC: 20.5 kg (45.19 lb)
Cabinet installation standard	IEC 19-inch
Typical power consumption	1100 W
Typical heat dissipation	3574 BTU/Hour
DC input voltage	<ul style="list-style-type: none"> Input voltage range: -40 V to -72 V Input rated voltage: -48 V/-60 V
AC input voltage	<ul style="list-style-type: none"> Input voltage range: 90 V to 290 V Input rated voltage: 100 V to 240 V
Redundant fans	2+1, normal operation in a short term when a single fan module fails at the ambient temperature of 40°C (104°F)
Redundant power supply	1+1
Switching capacity	13.6T bit/s
Long-term operating temperature	<ul style="list-style-type: none"> Port-side air intake: -5°C to +45°C (23°F to 113°F) Remarks: The temperature change rate limit is 30°C/hour.
Restriction on the operating temperature variation rate	Restriction on the temperature variation rate: 30°C/hour (86°F/hour).
Storage temperature	-40 °C to 70 °C (-40°F to 158°F)
Long-term operating relative humidity	5% to 90% RH, non-condensing
Short-term operating relative humidity	5% to 95% RH, non-condensing
Relative storage humidity	5% to 95% RH, non-condensing
Long-term operating altitude	< 4000 m
Storage altitude	< 5000 m

NOTE

- Regarding the physical dimensions provided in the table, the width (W) does not take mounting ears into account.
- Temperature and humidity are measured at 1.5 m (4.92 ft.) above the ground and 0.4 m (1.31 ft.) in front of the cabinet. There should be no protection board on the front or back of the cabinet.
- "Short-term" refers to continuous working time that does not exceed 96 hours and an accumulated working time per year that does not exceed 15 days. If the working time exceeds either of these values, it is considered "long-term".

Ordering Information

Basic Hardware Configurations

NetEngine 8000 F2A Basic Configurations

Order Name	Description
CR8PF2ABASCG	NetEngine 8000 F2A-8K36H Basic Configuration Bundle (Includes F2A-8K36H Chassis, 400GE Port enabled with 100GE capacity by default, and 120*50G Port Enable RTU, 2*DC Power, Port-side Intake, without Software and Document)
CR8PF2ABASCH	NetEngine 8000 F2A-8K36H Basic Configuration Bundle (Includes F2A-8K36H Chassis, 400GE Port enabled with 100GE capacity by default, and 120*50G Port Enable RTU, 2*AC Power, Port-side Intake, without Software and Document)

Software Configuration

License

Order Name	Description
N1-N8KF2F-LIC	N1-NetEngine 8000 F2 Series Foundation SW License
N1-N8KF2A-LIC	N1-NetEngine 8000 F2 Series Advanced SW License
N1-N8KF2FTA-LIC	N1-NetEngine 8000 F2 Series Foundation to Advanced SW License
N1-N8KF0IFITE-LIC	N1-NetEngine 8000 F Series iFIT Enhanced Function License
N1-N8KF0SOAM-LIC	N1-NetEngine 8000 F Series Smart OAM Function License
N1-N8KF0IFIT1K-LIC	N1-NetEngine 8000 F Series iFIT Flow Scales License(1K Flows)
N1-N8KF2TMSY-LIC	N1-NetEngine 8000 F2 Series Time Synchronization Function License
N1-N8KF2SRV6-LIC	N1-NetEngine 8000 F2 Series SRv6 Function License
N1-N8KF2SLI-LIC	N1-NetEngine 8000 F2 Series Port Slicing Function License
N1-N8KF2F-SNS1Y	N1-NetEngine 8000 F2 Series Foundation SW License SnS(1 year)
N1-N8KF2A-SNS1Y	N1-NetEngine 8000 F2 Series Advanced SW License SnS(1 year)
N1-N8KF2F2A-SNS1Y	N1-NetEngine 8000 F2 Series Foundation to Advanced SW License SnS(1 year)
N1-N8KF0IFITE-SNS1Y	N1-NetEngine 8000 F Series iFIT Enhanced Function License SnS
N1-N8KF0IFIT1K-SNS	N1-NetEngine 8000 F Series iFIT Flow Scales License SnS(1K Flows)
N1-N8KF0SOAM-SNS1Y	N1-NetEngine 8000 F Series Smart OAM Function License SnS

Order Name	Description
N1-N8KF2TMSY-SNS1Y	N1-NetEngine 8000 F2 Series Time Synchronization Function License SnS(1 year)
N1-N8KF2SRV6-SNS1Y	N1-NetEngine 8000 F2 Series SRv6 Function License SnS(1 year)
N1-N8KF2SLI-SNS1Y	N1-NetEngine 8000 F2 Series Port Slicing Function License SnS(1 year)

Optical/Electrical Transceivers

40Gbps QSFP+ optical module

Order Name	Description	Remarks
OMXD30009	40Gbps(4*10.3)-QSFP+-SMF-1271~1331nm-10km-commercial	
OMXD30010	40Gbps(4*10.3)-QSFP+-MMF-850nm-0.1km-commercial	
OSM010N11	40Gbps(4*10.3)-QSFP+-SMF-1310nm-10km-commercial	

50Gbps QSFP28 BIDI optical module

Order Name	Description	Remarks
QSFP28-50G-BIDI-10km-SM-2	BiDi Transceiver,QSFP28,1271nm(TX)/1331nm(RX),50G,-4.5dBm,4.2dBm,-8.9dBm,LC,10km	
QSFP28-50G-BIDI-10km-SM-1	BiDi Transceiver,QSFP28,1331nm(TX)/1271nm(RX),50G,-4.5dBm,4.2dBm,-8.9dBm,LC,10km	
QSFP28-50G-BIDI-40km-SM-2	BiDi Transceiver,QSFP28,1295nm(TX)/1309nm(RX),50G,1.5dBm,8dBm,-13.5dBm,LC-SMF-40km	
QSFP28-50G-BIDI-40km-SM-1	BiDi Transceiver,QSFP28,1309nm(TX)/1295nm(RX),50G,1.5dBm,8dBm,-13.5dBm,LC,SMF,40km	

50Gbps QSFP28 optical module

Order Name	Description	Remarks
OSL010N01	50Gbps-QSFP28-SMF-1311nm-10km-commercial	
QSFP28-50G-1311nm-40km-SM	50Gbps-QSFP28-SMF-1311nm-40km-commercial	
QSFP28-50G-1310nm-80km-SM-01	50Gbps-QSFP28-SMF-1295.56~1309.14nm-80km-commercial	

100Gbps QSFP28 optical module

Order Name	Description	Remarks
------------	-------------	---------

Order Name	Description	Remarks
OMND10N13	High Speed Transceiver, QSFP28, 850nm, 100G, -8.4dBm, 2.4dBm, -10.3dBm, MPO, MM, 0.1km, OM4	
OSN020N15	High Speed Transceiver, QSFP28, 1310nm, 4*25GBase, -6.5dBm, 2.5dBm, -9.8dBm, LC/PC, 2km (100GBASE-CWDM4)	
OSN010N24	High Speed Transceiver, QSFP28, 1310nm, 100G, -4.3dBm, 4.5dBm, -8.6dBm, LC, SMF, 10km	
QSFP28-100G-1310-40km-SM	High Speed Transceiver, QSFP28, 1310nm, 100G, -2.9dBm, 2.9dBm, -20.9dBm, LC, 40km	
QSFP28-100G-1310-80km-SM	High Speed Transceiver, QSFP28, 1310nm, 100G, 2dBm, 6.5dBm, -28dBm, LC, SMF, 80km	
OSN010N22	High Speed Transceiver, QSFP28, 1310, 100GE, -2dBm, 4.8dBm, -9.1dBm, LC, SMF, 10km, PAM4	Interworking with the 4*100G breakout module (OSK010NM1).

400Gbps QSFP-DD optical module

Order Name	Description	Remarks
OSK002N01	High Speed Transceiver, QSFP-DD FR4-4*100Gb/s PAM4(1310nm Band)-425Gb/s--3.3dBm-3.5dBm--7.6dBm-LC straight-SMF-2km	
OSK010N02	High Speed Transceiver, QSFP-DD LR8-8*56Gb/s PAM4(1310nm)-425Gb/s--2.8dbm-5.3dbm--9.1dbm-LC-SMF-10km	
OSK040N02	High Speed Transceiver, QSFP-DD ER8-8*50Gb/s PAM4(1310nm Band)-425Gb/s--0.6dBm-6.4dBm--16.1dBm-LC straight-SMF-40km	
OSK080N03	High Speed Transceiver, QSFP-DD, Tunable DWDM 191.3-196.1THz, 478.75Gb/s, -10dBm, -6dBm, -12dBm, LC, SMF	

For More Information

For more information about the NetEngine 8000 F2A service router, visit <https://e.huawei.com> or contact us in the following ways:


- Global service hotline: <https://e.huawei.com/en/service-hotline>
- Logging into the Huawei Enterprise technical support web: <https://support.huawei.com/enterprise/>

Sending an email to the customer service mailbox: support_e@huawei.com

Copyright © Huawei Technologies Co., Ltd. 2022. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Technologies Co., Ltd.

Trademarks and Permissions

 HUAWEI and other Huawei trademarks are trademarks of Huawei Technologies Co., Ltd.

All other trademarks and trade names mentioned in this document are the property of their respective holders.

Notice

The purchased products, services and features are stipulated by the contract made between Huawei and the customer. All or part of the products, services and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied.

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

Huawei Technologies Co., Ltd.

Address: Huawei Industrial Base
Bantian, Longgang Shenzhen 518129
People's Republic of China

Website: www.huawei.com