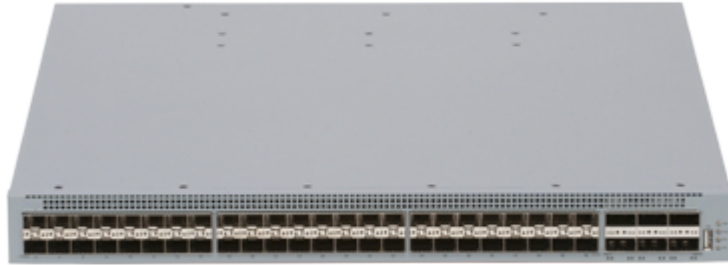


TITAN NETWORKING SERIES

SIMPLE, MULTICAST NETWORKING

TTN-7200F-10G

KEY FEATURES



PORT DENSITY:
54 PORTS



FIVE YEARS + 24/7 SUPPORT



STACKABLE CHASSIS



MULTICAST NETWORKING



VERTICAL MARKETS:



A reliable, simple setup solution, the BCD-TTN-7200F-10G provides stackable multicast switches. The series is perfectly suited to the unique requirements of the security market.

The Titan Networking Series is a series bringing simple, enterprise networking solutions for your security project. Powered by Avaya Networking, the 7200F offers a 54 port, stackable solution. The BCD-TTN-7200F-10G is designed for projects that require scalability. Built for multicast networking with Shortest Path Bridging, these switches also have a five year warranty and 24/7 support. BCDVideo and Avaya - bringing simple solutions to the security market.

	SFP + PORTS	QSFP+ PORTS	CHANNELIZATION	WEIGHT
BCD-TTN-7200F-10G	48 10 GBASE-SFP+ Ports	6 40GBASE-QSFP+ Ports	40 Gigabit Ports	18.74 lb/8.50 kg

	POWER CONSUMPTION	THERMAL RATING (OUTPUT)	CONSOLE PORTS	MTBF	UPC
BCD-TTN-7200F-10G	460 Watts (max)	1570 BTU/hr (max)	RJ-45 + USB 2.0 port	296,402 hrs	859407006098

SYSTEM CPU SPEED	SYSTEM MEMORY	INPUT POWER	SWITCH FABRIC PERFORMANCE	FRAME FORWARDING RATE	REDUNDANT POWER
1.2GHz	2GB	100-240VAC	2.56Tbps Full-Duplex	1428Mpps/Switch	Available

RACKMOUNT BRACKETS	STANDALONE	CHASSIS	HEIGHT	WIDTH	DEPTH
(1) 19"/44 mm set	Capable	1U Rackmount	1.75"/44.5 mm	17.30"/440 mm	18.25"/464 mm

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GENERAL	LAYER 2	
<ul style="list-style-type: none"> Nominal Latency: <480nsec Jumbo Frame support: up to 9,600 Bytes (802.1Q Tagged) 	MAC Address: 224,000 <ul style="list-style-type: none"> Port-based VLANs: 4,059 Private VLANs/E-Tree: 4,059 <ul style="list-style-type: none"> MSTP Instances: 12 MLT/LACP Groups: up to 72 <ul style="list-style-type: none"> MLT Links per Group: 8 LACP Links per Group: 8 Active Avaya VLACP Instances: 54, and up to 72 when all 40 Gigabit ports are Channelized Avaya SLPP Instances: 128 	
LAYER 3 IPV4 ROUTING SERVICES		
ARP Entries: 32,000 <ul style="list-style-type: none"> Static ARP Entries: 2000 per VRF, 10,000 System-wide IP Interfaces: 506 CLIP Interfaces: 64 IP Routes: to up 16,000 IP Static Routes: 1,000 per VRF, 5000 System-wide 	<ul style="list-style-type: none"> RIP Interfaces: 200 RIP Routes: up to 16,000 OSPF Interfaces: 500 OSPF Routes: up to 16,000 OSPF Areas: 12 per VRF, 80 System-wide BGP Peers: 12 BGP Routes: up to 16,000 ECMP Groups: 1,000 	<ul style="list-style-type: none"> ECMP Paths per Group: 8 NLB Interfaces: 256 VRRP Interfaces: 252 RSMLT Interfaces: 252 IP Route Policies: 500 per VRF, 5,000 System-wide VRF Instances: 24
LAYER 3 IPV6 ROUTING SERVICES		
Neighbors: 8,000 <ul style="list-style-type: none"> Static Neighbors: 256 IP Interfaces: 506 CLIP Interfaces: 64 IP Configured Tunnels: 506 IP Routes: up to 8,000 	<ul style="list-style-type: none"> IP Static Routes: 1,000 RIPng Interfaces: 48 RIPng Routes: up to 8,000 OSPFv3 Interfaces: 500 OSPFv3 Routes: up to 8,000 OSPFv3 Areas: 12 per VRF, 80 System-wide 	<ul style="list-style-type: none"> ECMP Groups: 1,000 ECMP Paths per Group: 8 VRRP Interfaces: 252 RSMLT Interfaces: 252
MULTICAST	QoS & FILTERING	
IGMP Interfaces: 4,059 <ul style="list-style-type: none"> PIM Active Interfaces: 128 PIM Passive Interface: 500 PIM-SSM Static Channels: 4,000 IP Multicast Streams: 6,000 	ACL: 256 Ingress and 126 Egress <ul style="list-style-type: none"> IPv4 ACE: 766 Ingress and 252 Egress IPv4 ACE: 252 Ingress and 252 Egress L2-L4 Ingress Port Rate Limiters: 54, and up to 72 when all 40 Gigabit ports are Channelized Egress Port Shaper Granularity: 1Mbps to 40Gbps per Port 	
OPERATIONS & MANAGEMENT		
Mirrored Ports: 53, and up to 71 when all 40 Gigabit ports are Channelized		

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FABRIC CONNECT		
<ul style="list-style-type: none"> 802.1aq/RFC 6329 Shortest Path Bridging with Avaya extensions • MAC Address: 112,000 • IS-IS Adjacencies: 54, and up to 72 when all 40 Gigabit ports are Channelized 	<ul style="list-style-type: none"> • BCB/BEB Nodes per Region: 2,000 • BEB Nodes per VSN: 500 • L2 Virtual Service Networks: 4,059 • L3 Virtual Service Networks: 24 • IP Shortcut Routes: IPv4 up to 16,000, 	<ul style="list-style-type: none"> and IPv6 up to 8,000 • L2 Multicast Virtual Service Networks: 2,000 • L3 Multicast Virtual Service Networks: 24
SUPPORT TRANSCEIVERS - 40 GIGABIT ETHERNET		
<ul style="list-style-type: none"> 40GBASE-QSFP+ Passive Copper Direct Attach Cables – 0.5m, 1m, 3m, 5m • 40GBASE-QSFP+ Passive Copper Break-Out Cables – 1m, 3m, 5m • 40GBASE-QSFP+ Active Optical Break-Out 	<ul style="list-style-type: none"> Cable – 7m, 10m, 15m • 40GBASE-QSFP+ Active Optical Direct Attach Cable – 10m • 40GBASE-LM4 QSFP+, up to 80m over MMF • 40GBASE-SR4/4x10GBASE-SR QSFP+ 	<ul style="list-style-type: none"> up to 150m over MMF • 40GBASE-LR4 QSFP+, up to 10km over SMF • 40GBASE-ER4 QSFP+, up to 40km over SMF
SUPPORT TRANSCEIVERS - 10 GIGABIT ETHERNET		
<ul style="list-style-type: none"> 10GBASE-CX, up to 10m over Twinax. • 10GBASE-SR/SW SFP+, up to 400m over MMF • 10GBASE-LR/LW SFP+, up to 10km over SMF 	<ul style="list-style-type: none"> • 10GBASE-BX10 SFP+, up to 10km over SMF • 10GBASE-ER SFP+, up to 40km over SMF • 10GBASE-ER CDWM SFP+, up to 40km over SMF 	<ul style="list-style-type: none"> • 10GBASE-ZR CDWM SFP+, up to 70km over SMF
IEEE - 802.1 BRIDGING (NETWORKING) & NETWORK MANAGEMENT		
<ul style="list-style-type: none"> 1802.1D MAC Bridges (a.k.a. Spanning Tree Protocol) • 802.1p Traffic Class Expediting and Dynamic Multicast Filtering • 802.1t 802.1D Maintenance • 802.1w Rapid Reconfiguration of Spanning Tree (RSTP) 	<ul style="list-style-type: none"> • 802.1Q Virtual Local Area Networking (VLAN) • 802.1s Multiple Spanning Trees (MSTP) • 802.1v VLAN Classification by Protocol & Port • 802.1ag Connectivity Fault Management • 802.1ah Provider Backbone Bridges 	<ul style="list-style-type: none"> • 802.1aq Shortest Path Bridging (SPB) MACin-MAC • 802.1Qbp Equal-Cost Multi-Path (Shortest Path Bridging) • 802.1X Port-based Network Access Control • 802.1AE Media Access Control Security • 802.1AX Link Aggregation
IEEE - 802.3 ETHERNET		
<ul style="list-style-type: none"> 802.3-1983 CSMA/CD Ethernet (ISO/IEC 8802-3) • 802.3i-1990 10Mb/s Operation, 10BASE-T Copper • 802.3u-1995 100Mb/s Operation, 100BASE-T Copper, with Auto-Negotiation 	<ul style="list-style-type: none"> • 802.3x-1997 Full Duplex Operation • 802.3z-1998 1000Mb/s Operation, implemented as 1000BASE-X • 802.3ab-1999 1000Mb/s Operation, 1000BASE-T Copper • 802.3ae-2002 10Gb/s Operation, 	<ul style="list-style-type: none"> implemented as 10GBASE-SFP+ • 802.3an-2006 10Gb/s Operation, 10GBASE-T Copper • 802.3ba-2010 40Gb/s and 100Gb/s Operation, implemented as 40GBASE-QSFP+

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ENVIRONMENTAL SPECIFICATIONS	COOLING
<p>Operating Temperature: 0°C to 40°C (32°F to 104°F) Storage Temperature: -10°C to 60°C (14°F to 140°F) Operating Humidity: Up to 95% relative humidity Storage Humidity: Up to 95% relative humidity Operating Altitude: 3024m (10,000ft) maximum</p>	<p>Three (3) Front-to-Back or Back-to-Front Fan Modules</p>