On-Call Communications

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Application Brief
Nortel Business Communications Manager 50
Technical Specifications

Physical Specifications

Depth	32.39 cm; 12.75 in.
Width	21.9 cm; 8.625 in.
Height	6.67 cm; 2.625 in.
Weight	BCM50 1.87kg; 4lb. 1.9 oz.; BCM50a/e 2.08kg; 4lb. 8.6 oz.
MBM	2 w/Expansion Unit
CPU	PowerQuickII 8270
Memory	256 Mbytes of SDRAM
Hard drive	40G Serial ATA HD
System status LEDs	Status and Power
Mounting options	Desk top, wall mount or rack mount
Power supply specifications	AC input: 100-240V -2 AA, 50-60 Hz; DC output: 19 6.32 A
Operating temperature	-5°C to 50°C
Operating humidity	90-95% RH at 40°C
Storage temperature	-55°C to 70°C
Storage humidity	90-95% RH at 40°C

Mechanical Requirements

Packaged

- Transportation vibration as per Telcordia GR-63 (Section 5.4.3, Figure 4-3, Curve 2)
- Transportation bounce as per IEC 68-2-55 (Method A)
- Drop and vibration as per ISTA Procedure 1A

Unpackaged (Operational)

- Office vibration as per Telcordia GR-63 (Section 5.4.2, Electronic Subassemblies)
- Mechanical shock as per IEC 68-2-27 (Test Ea)
- Drop as per IEC 68-2-32 (Test Ed)

Regulatory compliance

Federal Communications Commission (FCC) Part 68 and has been registered under files Industry Canada 332D-5980A and FCC US: AB6KF15B20705 (key system), US: AB6MF15B20706 (hybrid system) and US: AB6PF15B23740 (PBX system). BCM50 Model No. NT7B10xxxx is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. European Safety requirements EN 60950 and EMC requirements EN 55022 (Class A) and EN 55024.

Electromagnetic emissions

BCM50 equipment meets all FCC Part 15, Class A radiated and conducted emissions requirements. BCM50 does not exceed the Class A limits for radiated and conducted emissions from digital apparatus as set out in the Radio Interference Regulations of Industry Canada.

Electromagnetic emissions

The Nortel BCM50, BCM50 with ADSL Router (BCM50a), BCM50 with Ethernet Router (BCM50e) and BCM50 Expansion Unit fully comply with the following standards and specifications:

European Union	European Union EN55024 (1998 w/A1:01 & A2:03)/CISPR 24 (1997) excluding Annex A EN55022 (1998) Class A EN61000-3-2 (2001) EN61000-3-3 (1995 w/A1:98)

The following specific tests were performed to verify the above certifications

Radiated Emissions	EN55022 (1998)	Class A
Mains Conducted Emissions	EN55022 (1998) CISPR 22 (1997)	Class A
Harmonic Emissions	EN61000-3-2 (2001)	
Voltage Fluctuations and Flicker Emissions	EN61000-3-3 (1995 w/A1:98)	
Electrostatic Discharge	EN61000-4-2 (1995) EN55024 (1998 w/A1:01 & A2:03) CISPR 24 (1997)	+/- 4kV contact +/- 8kV air
Radiated E-Field Immunity	EN61000-4-3 (1997) EN55024 (1998 w/A1:01 & A2:03) CISPR 24 (1997)	3V/m
Electrical Fast Transient Burst	EN61000-4-4 (1995) EN55024 (1998 w/A1:01 & A2:03) CISPR 24 (1997)	1 kV (AC) 0.5 kV (I/O)
Surge	EN61000-4-5 (1995) EN55024 (1998 w/A1:01 & A2:03)	2 kV (AC) 1 kV (AC)
Conducted Immunity	EN61000-4-6 (1996) EN55024 (1998 w/A1:01 & A2:03) CISPR 24 (1997)	3 Vrms
Voltage Dips and Interrupts	EN61000-4-11 (1994) EN55024 (1998 w/A1:01 & A2:03) CISPR 24 (1997)	>95%, 30%, >95%
Network protection		
Safety and surge/transient		

MBM

BCM50 main unit
- One Amphenol (male) connector (25 pair)
- 4 loop start CLASS/CMS lines (keycode enabled)
- 4 analog station ports [disconnect supervision - 850 Ms Momentary Disconnect, Message Waiting Indication - NA 120V 600 ms on and 1000 off, Calling Line Identification (CLID) Name and Number] (keycode enabled)
- 12 digital phone ports (keycode enabled)

Embedded modem
- BCM50 — standard soft modem support on analog lines

BCM50
- Craftsperson interface — 10/100 auto sensing/auto polarity; RJ-45 connector, DHCP support
- Customer access — 10/100 auto sensing/auto polarity; RJ-45 connector, DHCP support
- Expansion port or 10/100 auto sensing/auto polarity switch port; RJ-45 connector, DHCP support
- Expansion port or 10/100 auto sensing/auto polarity switch port; RJ-45 connector, DHCP support

BCM50a and BCM50e
- 3 10/100 auto sensing/auto polarity switch port; DHCP support

Telephony Components

MSC interfaces
- BCM50 Main unit — Recessed reset button; USB interface, Music on Hold Interface [3.5mm (1/8 inch) standard miniature stereo (3 conductor)]; Auxiliary Ringer, Page Relay, Page Output and Music on Hold on Amphenol (male) connector (25 pair)

WAN Interface

BCM50a
- ADSL interface, RJ-45 connector

BCM50e
- 10/100 auto sensing/auto polarity; RJ-45 connector

Expansion cabinets

BCM50 Expansion Unit
- One Media Bay Module slot
- Supports all BCM Media Bay Modules except FEM and DDIM
- Maximum two Expansion Units per BCM50
- Utilizes standard 10/100 LAN cable for the interface to the BCM50 main unit
- Supports 3 10/100 auto sensing/auto polarity switch port; DHCP support

Depth	32.38 cm, 12.75 in.
Width	21.91 cm, 8.625 in.
Height	6.67 cm, 2.625 in.
Weight	1.05 kg, 2 lb. 5.2 oz

Nortel is a recognised leader in delivering communications capabilities that enhance the human experience, ignite and power global commerce, and secure and protect the world's most critical information. Serving both service provider and enterprise customers, Nortel delivers innovative technology solutions encompassing end-to-end broadband, voice over IP, multimedia services and applications, and wireless broadband designed to help people solve the world's greatest challenges. Nortel does business in more than 150 countries.

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