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Product Bulletin

Nortel Norstar Modular ICS

Technical Specifications

Service tone cadences

Tone	Cadence (seconds)
Busy	0.5 on/0.5 off
Expensive route	0.3 on/0.3 off (3 bursts)
Overflow	0.25 on/0.25 off
Ringback	2.0 on/4.0 off
Confirmation	1.0 on/1.0 off (3 bursts followed by no tone)
Recall	1.0 on/1.0 off (3 bursts followed by steady tone)
Ring splash	0.2 on (1 burst)

Power specifications

Characteristic	ICS	TM	SM
Voltage V ac	110 - 120	110 - 120	110 - 120
Current A rms (max)	2.6	1.75	1.0
Frequency Hz	47 - 63	45 - 70	45 - 70
Crest factor	4.0	4.0	4.0

Telephone loop specifications

Characteristic	Value
Loop resistance	64 Ohms (300 m of 0.5 mm wire or 1000 ft. of 24 AWG wire)
Loop length	300 m (1000 ft.) without SAPS 780 m (2600 ft.) with SAPS
Minimum voltage at telephone	10 V dc
Current at telephone (idle)	45 mA nominal
Current at telephone (active)	80 mA maximum

Electrical requirements

Characteristic	Spec/value
Electrostatic discharge	
ICS and telephones	IEC 1000-4-2 / EN 61000-4-2 severity level 3 maximum of 15 kV with a 300 Ohm/150 pF probe
Connectors	IEC 1000-4-2/EN 61000-4-2 severity level 2
Radiated immunity	Maximum of 5 V/m from 100 kHz to 1 GHz
Conducted immunity	Maximum of 3 V rms from 0.1 MHz to 30 MHz

Digital trunk interface/network interface

Characteristic	Spec/value
Physical	RJ48C 8-pin modular jack
Line rate	1.544 +/- 32 Mbps
Framing	Superframe/extended superframe*
Line code	AMI/B8ZS*
Impedance	100 Ohms

DSX1 operation

Characteristic	Spec/value
Pre-equalization	0 - 700 ft.*
Stratum	4E

CSU operation	
Characteristic	Spec/value
Line build out	0, 7.5, or 15 dB*
Input dynamic range	0 to -26 dB (typical)
Performance reporting	Simultaneous support of TR 54016 or TIA-547A
Line loopback support	Remote activation/deactivation via in-band code or FDL as per TR 54016 or TIA-547A
Payload loopback support	Remote activation/deactivation via FDL as per TR 54016 or TIA-547A
Carrier failure alarms (CFA)	Alarm indication signal (AIS) Red Yellow

Trunk signaling support	
Characteristic	Spec/value
Loop start with answer and disconnect super.	OSI interval* Pulse/DTMF dialing*
DID	Immediate start (pulse dialing only), Wink start or Delay start,* Pulse/DTMF dialing*
E&M	Immediate start (pulse dialing only), Wink start, Delay start or ring-down tie line,* Pulse/DTMF dialing*

Local test support	
Characteristic	Spec/value
Monitor jack	Bridging via Bantam jack
Line loopback	Activate/deactivate via maintenance*
Payload loopback	Activate/deactivate via maintenance*
Card edge loopback	Activate/deactivate via maintenance
Continuity loopback	Activate/deactivate via push button on faceplate*

Physical specifications	
Characteristic	Spec/value
Height	24.8 in.
Width	11.8 in.
Depth	6.7 in.
Weight	13.23 lbs. with power supply 16.5 lbs. with all slots filled

* Value is set in configuration programming.

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