

# Norstar Modular ICS

## SERVICE TONE CADENCES

TONE	CADENCE (SECONDS)	TONE	CADENCE (SECONDS)
<b>Busy</b>	0.5 on / 0.5 off	<b>Confirmation</b>	1.0 on / 1.0 off (3 bursts followed by no tone)
<b>Expensive Route</b>	0.3 on / 0.3 off (3 bursts)	<b>Recall</b>	1.0 / 1.0 off (3 bursts followed by steady tone)
<b>Overflow</b>	0.25 on / 0.25 off	<b>Ring Splash</b>	0.2 on (1 burst)
<b>Ringback</b>	2.0 on / 4.0 off		

## POWER SPECIFICATIONS

CHARACTERISTIC	ICS	TM	SM
<b>Voltage V ac</b>	110 - 120	110 - 120	110 - 120
<b>Current A rms (max)</b>	2.6	1.75	1.0
<b>Frequency Hz</b>	47 - 63	45 - 70	45 - 70
<b>Crest Factor</b>	4.0	4.0	4.0

## TELEPHONE LOOP SPECIFICATIONS

CHARACTERISTIC	VALUE	CHARACTERISTIC	VALUE
<b>Loop resistance</b>	64 Ohms (300 m of 0.5 mm wire or 1000 ft of 24 AWG wire)	<b>Min. voltage at telephone</b>	10 V dc
<b>Loop length</b>	300 m (1000 ft) without SAPS 780 m (2600 ft) with SAPS	<b>Current at telephone (idle)</b>	45 mA nominal
		<b>Current at telephone (active)</b>	80 mA maximum

## ELECTRICAL REQUIREMENTS

CHARACTERISTIC	SPEC/VALUE	CHARACTERISTIC	SPEC/VALUE
<b>Electrostatic discharge</b>		<b>Radiated Immunity</b>	max. of 5 V/m from 100 kHz to 1 GHz
<b>ICS and telephones</b>	IEC 1000-4-2 / EN 61000-4-2 severity level 3 max. of 15 kV with a 300 Ohm/150 pF probe	<b>Conducted immunity</b>	max. of 3 V rms from 0.1 MHz to 30 MHz
<b>Connectors</b>	IEC 1000-4-2 / EN 61000-4-2 severity level 2		

## DIGITAL TRUNK INTERFACE/NETWORK INTERFACE

CHARACTERISTIC	SPEC/VALUE	CHARACTERISTIC	SPEC/VALUE
<b>Physical</b>	RJ48C 8-pin modular jack	<b>Line code</b>	AMI/B8ZS*
<b>Line rate</b>	1.544 +/- 32 Mbps	<b>Impedance</b>	100 Ohms
<b>Framing</b>	Superframe/extended superframe*		

## DSX1 OPERATION

CHARACTERISTIC	SPEC/VALUE	CHARACTERISTIC	SPEC/VALUE
<b>Pre-equalization</b>	0 - 700 ft*	<b>Stratum</b>	4E

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## CSU OPERATION

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

## TRUNK SIGNALING SUPPORT

CHARACTERISTIC	SPEC/VALUE	CHARACTERISTIC	SPEC/VALUE
<b>Loop start with answer and disconnect super.</b>	OSI interval* Pulse/DTMF dialing*	<b>DID</b>	Immediate start (pulse dialing only), Wink start or Delay start* Pulse/DTMF dialing*
<b>E&amp;M</b>	Immediate start (pulse dialing only), Wink start, Delay start or ring-down tie line* Pulse/DTMF dialing*		

## LOCAL TEST SUPPORT

CHARACTERISTIC	SPEC/VALUE	CHARACTERISTIC	SPEC/VALUE
<b>Monitor jack</b>	Bridging via Bantam jack	<b>Card edge loopback</b>	activate/deactivate via maintenance
<b>Line loopback</b>	activate/deactivate via maintenance*	<b>Continuity loopback</b>	activate/deactivate via push button on faceplate*
<b>Payload loopback</b>	activate/deactivate via maintenance*		

## PHYSICAL SPECIFICATIONS

CHARACTERISTIC	SPEC/VALUE	CHARACTERISTIC	SPEC/VALUE
<b>Height</b>	24.8 in.	<b>Depth</b>	6.7 in.
<b>Width</b>	11.8 in.	<b>Weight</b>	13.23 lbs with power supply 16.5 lbs with all slots filled

\* Value is set in Configuration programming

