

The audio signal is modulated and demodulated on both sides, in full duplex.

The CO side has a ringing detector that operates from 17 Hz to 50 Hz, as low as 40 V_{rms} .

2.4 Technical Specifications

2.4.1 751322 Expandable POTS Plug-in card

For 751322 electrical specifications, see Table 2.

For physical specifications, see Table 3 on page 16.

Table 2: Electrical Specifications for 751322
(measured at 25°C or 77°F, 50% R.H.)

	Parameter	Specification
Isolation Data:	Isolation Resistance	100,000 M Ω
	Metallic Surge	1.5 kV max
	Insulation Voltage	50 kV _{rms} (70 kV peak)
Input Voltage Requirement:		-24 Vdc (-21 V to -27 V) default to -48 Vdc (-42 V to -54 V)
Input Power Requirement (-48 Vdc input):	On-hook (idle)	45 mA max
	Off-hook	60 mA max
	Ringing 1 phone	90 mA max
	Ringing 5 REN	170 mA max
Input Power Requirement (-24 Vdc input):	On-hook (idle)	65 mA max
	Off-hook	105 mA max
	Ringing 1 Phone	125 mA max
	Ringing 5 REN	250 mA max
On-hook:	CO Side Input Ringing Detection	40 V to 105 V_{rms} , 17 to 50 Hz
	Terminal Resistance (CO side)	$\geq 10\text{ M}\Omega \pm 100\text{ Vdc}$, $\geq 10\text{ M}\Omega$ at $\pm 200\text{ Vdc}$
Off-hook:	Minimum Loop Current (CO)	18 mAdc
	Maximum Loop Current (CO)	Current limiting at 29 mAdc
	Minimum Loop Current (Station)	Will detect off-hook down to 16 mAdc
	Maximum Loop Current (Station)	Current limiting at 36 mAdc
	Echo Return Loss	600 $\Omega \geq 15\text{ dB}$
	Singing Return Loss	600 $\Omega \geq 9\text{ dB}$
	Insertion Loss (both directions)	$\leq 1\text{dB @ } 1\text{kHz}$, 600 Ω
	Frequency response (both directions) (300 Hz - 3400 Hz)	$\leq 3\text{dB ref to } 1\text{kHz}$
<i>...continued</i>		
Ringing Generator Output (-48 Vdc input):	Maximum Output No Load	102 V_{rms} max
	Minimum Output (5 REN at the end of 400 Ω line)	55 V_{rms} min
Ringing Generator Output (-24 Vdc input):	Maximum Output No Load	103 V_{rms} max
	Minimum Output (5 REN at the end of 400 Ω line)	50 V_{rms} min

Table 3: Physical Specifications for 751322

Parameter	Specification
Operating Temperature Range	-40°C to +85°C (-40°F to +185°F)
Height	30.5 cm (12")
Width	5.1 cm (2")
Depth	18.9 cm (7-7/16")
Weight	0.7 kg (1.5 lbs)

2.4.2 751322/1 POTS Add-on card

For 751322/1 electrical specifications, see Table 4 below.

For physical specifications, see Table 5.

**Table 4: Electrical Specifications for 751322/1
(measured at 25°C or 77°F, 50% R.H.)**

	Parameter	Specification
Isolation Data:	Isolation Resistance	100,000 M Ω
	Metallic Surge	1.5 kV max
	Insulation Voltage	50 kV _{rms} (70 kV peak)
On-hook:	CO Side Input Ringing Detection	40 V to 105 V _{rms} , 17 to 50 Hz
	Terminal Resistance (CO side)	$\geq 10 \text{ M}\Omega \pm 100 \text{ Vdc}$, $\geq 10 \text{ M}\Omega$ at $\pm 200 \text{ Vdc}$
Off-hook:	Minimum Loop Current (CO)	18 mADC
	Maximum Loop Current (CO)	Current limiting at 29 mAdc
	Minimum Loop Current (Station)	Will detect off-hook down to 16 mAdc
	Maximum Loop Current (Station)	Current limiting at 36 mAdc
	Echo Return Loss	600 $\Omega \geq 15\text{dB}$
	Singing Return Loss	600 $\Omega \geq 9\text{dB}$
	Insertion Loss (both directions)	$\leq 1\text{dB @ } 1\text{kHz}$, 600 Ω
	Frequency response (both directions) (300 Hz - 3400 Hz)	$\leq 3\text{dB ref to } 1\text{kHz}$
Ringing Generator Output (-48 Vdc input):	Maximum Output No Load	102 V _{rms} max
	Minimum Output (5 REN at the end of 400 Ω line)	55 V _{rms} min
Ringing Generator Output (-24 Vdc input):	Maximum Output No Load	103 V _{rms} max
	Minimum Output (5 REN at the end of 400 Ω line)	50 V _{rms} min

Table 5: Physical Specifications for 751322/1

Parameter	Specification
Operating Temperature Range	-40°C to +85°C (-40°F to +185°F)
Height	29.2 cm (11-1/2")
Width	3.7 cm (1-7/16")
Depth	15.4 cm (6-1/16")
Weight	0.4 kg (0.9 lbs)

2.4.3 751322/2 Dual POTS Plug-in card

For 751322/2 electrical specifications, see Table 6 below.

For physical specifications, see Table 7 on page 18.

**Table 6: Electrical Specifications for 751322/2
(measured at 25°C or 77°F, 50% R.H.)**

Parameter		Specification
Isolation Data:	Isolation Resistance	100,000 M Ω
	Metallic Surge	1.5 kV max
	Insulation Voltage	50 kV _{rms} (70 kV peak)
Input Voltage Requirement:		-24 Vdc (-21 V to -27 V) default to -48 Vdc (-42 V to -54 V)
Input Power Requirement (-48 Vdc input):	Both Lines On-hook (idle)	59 mA max
	Line 1 Off-hook	84 mA max
	Line 2 Off-hook	115 mA max
	Both Lines Off-hook	135 mA max
	Ringling 1 phone on 1 Line	96 mA max
	Ringling 5 REN on 2 Line	166 mA max
	Ringling 1 Phone on Both Lines	105 mA max
	Ringling 7 REN Total (max load)	180 mA max
Input Power Requirement (-24 Vdc input):	Both Lines On-hook (idle)	100 mA max
	Line 1 Off-hook	135 mA max
	Line 2 Off-hook	141 mA max
	Both Lines Off-hook	175 mA max
	Ringling 1 phone on 1 Line	145 mA max
	Ringling 5 REN on 2 Line	275 mA max
	Ringling 1 Phone on Both Lines	150 mA max
	Ringling 7 REN Total (max load)	285 mA max
On-hook:	CO Side Input Ringing Detection	40 V to 105 V _{rms} , 17 to 50 Hz
	Terminal Resistance (CO side)	$\geq 10 \text{ M}\Omega \pm 100 \text{ Vdc}$, $\geq 10 \text{ M}\Omega$ at $\pm 200 \text{ Vdc}$
Off-hook:	Minimum Loop Current (CO)	18 mAdc
	Maximum Loop Current (CO)	Current limiting at 29 mAdc
	Minimum Loop Current (Station)	Will detect off-hook down to 16 mAdc
	Maximum Loop Current (Station)	Current limiting at 36 mAdc
	Echo Return Loss	600 $\Omega \geq 15\text{dB}$
	Singing Return Loss	600 $\Omega \geq 9\text{dB}$
	Insertion Loss (both directions)	$\leq 1\text{dB @ } 1\text{kHz}$, 600 Ω
	Frequency response (both directions) (300 Hz - 3400 Hz)	$\leq 3\text{dB ref to } 1\text{kHz}$

Parameter(Continued)		Specification
Ringing Generator Output (-48 Vdc input):	Maximum Output No Load	102 V _{rms} max
	Minimum Output (5 REN at the end of 400 Ω line)	55 V _{rms} min
Ringing Generator Output (-24 Vdc input):	Maximum Output No Load	103 V _{rms} max
	Minimum Output (5 REN at the end of 400 Ω line)	50 V _{rms} min

Table 7: Physical Specifications for 751322/2

Parameter	Specification
Operating Temperature Range	-40°C to +85°C (-40°F to +185°F)
Height	30.5 cm (12")
Width	5.1 cm (2")
Depth	18.9 cm (7-7/16")
Weight	1.1 kg (2.4 lbs)