

2-Wire FXS & FXO 2-Wire Loop Originating & Terminating

The Omniplexer family of 2-wire Foreign Exchange voice modules provides the interfaces necessary to support most telephone exchanges (central offices and PBX's) and subscriber loop circuits. These modules plug into any channels module slot in both E1 and T1 Omniplexer systems. Four independent channels are carried on each module.

This 2-wire loop family includes Foreign Exchange interfaces (FXO & FXS), supporting loop start and ground start circuits with ringing and Private Line Automatic Ringdown (PLAR). For E1 systems, Loop Originating (LPO) and Loop Terminating (LPT) interfaces for uni-directional exchange trunks (outgoing/incoming) are provided. The LPO and LPT interfaces use the International R2 signalling format for transmission of signalling states.

Both tone and pulse dialling are supported.

The 2-wire loop modules utilize a software-intensive design to create interfaces in support of virtually any digital signalling format. Given knowledge of the signalling state transitions, Bayly can tailor these interfaces to meet your specific network requirements.

APPLICATIONS

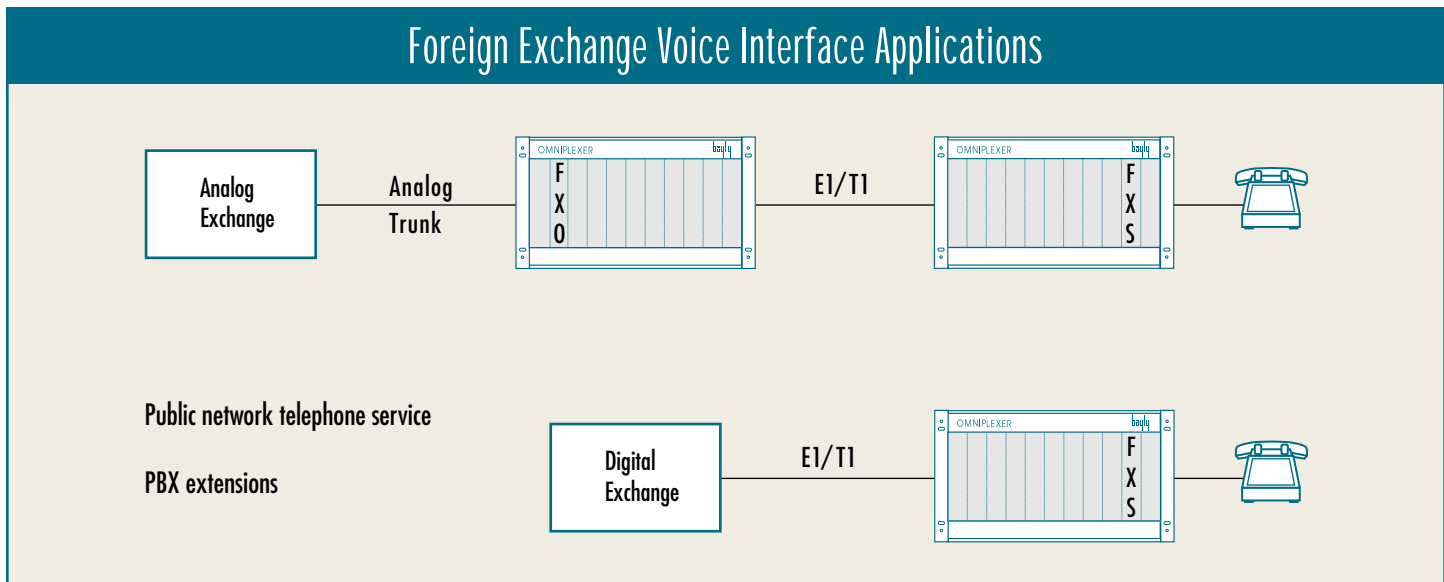
- Analog exchange to digital network interface
- Toll quality loop start service to residential and business locations
- Direct Inward Dialling (DID) with battery reversal for direct access to PBX extensions via the public network
- Private Line Automatic Ringdown (PLAR) to link two telephones together for immediate connection as a "hotline"

ADVANTAGES

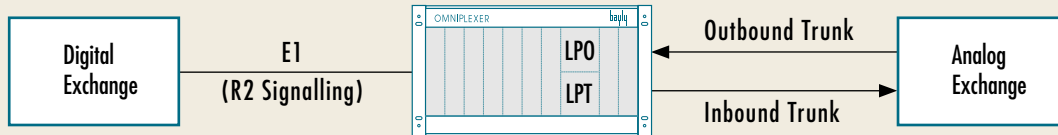
- Supports virtually all exchanges
- Supports R2 signalling format (E1 systems)
- Flexible software platform can support any digital signalling format
- Software control of all operating parameters



PLAR-Automatic Ringdown



Loop Signalling Applications



- Supports uni-directional PBX trunks
- Supports international R2 signalling
- Supports other signalling protocols

2-Wire Loop Voice Module Specifications

Voice Interface:	2-wire loop start (ground start provided for T1 systems)	Delay Distortion:	≤ 750 μS, 600 to 1000 Hz ≤ 250 μS, 1000 to 2600 Hz ≤ 1.5 mS, 2600 to 2800 Hz
Transmit Level:	+2.8dBm to -17.5 dBm	Frequency Response:	300 to 400 Hz: +0.6 dB to -2.0 dB 400 to 600 Hz: +0.6 dB to -1.5 dB 600 to 3000 Hz: +0.6 dB to -0.7 dB 3000 to 3400 Hz: +0.6 dB to -3.0 dB
Receive Level:	+0.8 dBm to -21.5 dBm	Level Tracking:	± 0.5 dB, +3 dBm0 to -40 dBm0 ± 0.5 dB, +3 dBm0 to -40 dBm0 ± 3 dB, -50 dBm0 to -55 dBm0
Adjustability:	± 0.1 dB steps	Dialling Distortion:	Input at FXS: Loop pulsing at 12 pps 64% break, with 1500 ohms external circuit resistance Output at FXO: 76% break max.
Impedance:	600 ohms + 2.16 μF or 900 ohms + 2.16 μF	Maximum Loop Length:	2000 ohms
Total Distortions:	< 33dB, 0 to -30 dBm0 < 27dB, -30 to -40 dBm0 < 22dB, -40 to -45 dBm0	NBO Adjustment:	0 to 128 nF in 4 nF steps
Idle Channel Noise:	< -65 dBm0p (weighted)		
Return Loss:			
	FXS/LPO	FXO/LPT	
	2-Wire Return loss >22 dB	> 18 dB	
	4-Wire Echo > -45 dB	> -25 dB	
Crosstalk:	< 65 dBm0, 300 to 3400 Hz		

Additional Specifications:		FXO	FXS	LPT	LPO
On-hook DC resistance:		20k ohms	N/A	20k ohms	N/A
Ringing Voltage:	Maximum	100 VAC	100 VAC	N/A	N/A
	Minimum	70 VAC	70 VAC	N/A	N/A
Ringing Frequency:		20-25 Hz	20-25 Hz	N/A	N/A
On/Off Hook Thresholds:	Long Loop	7mA	N/A	7 mA	N/A
	Short Loop	4mA	N/A	4 mA	N/A
Off Hook Threshold:		N/A	9 mA	N/A	9 mA

Module Types and Ordering Information

E1 Omnplexer Systems:

- 4-channel FXO
Part number: 050 293
- 4-channel LPO
Part number: 050 305
- 4-channel FXS
Part number: 050 290
- 4-channel LPT
Part number: 050 292

T1 Omnplexer Systems:

- 4-channel FXO
Part number: 050 488
- 4-channel FXS
Part number: 050 487

Accessories:

- 10 Watt Ring Generator
 - 70-100 VRMS
 - 20/25 Hz
 - Part number: 050 368

For complete specifications, please contact Bayly Communications

**NETWORK ACCESS
AND TRANSMISSION
PRODUCTS**

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