



DSL Line Drivers and Receivers

DSL Line Drivers

Device	BW (MHz)	SR (V/μs)	V _S (min) (V)	V _S (max) (V)	I _S (per amp) (mA)	Noise V _N (V/μs)	I _{BIAS} (μA)	V _{OS} (max) (mV)	# of Devices/Channels	V _{OUT} (V)	Rail-to-Rail Input	Rail-to-Rail Output	Gain A _V (min)	Enable	Package
ISL1536	50	400	5	30	3	8	5		2	21.7	N	N	12.85	Y	16 Ld QFN
ISL1535	100	500	5	30	13.3	3.9	70		2	21.6	N	N	5	Y	24 Ld QFN, 28 Ld HTSSOP
EL1517	200	800	5	12	7	6	5	25	2	10	N	N	1	Y	16 Ld QFN, 8 Ld SOIC
EL1517A	200	800	5	12	7	6	5	25	2	10	N	N	1	Y	10 Ld MSOP
ISL1571	250	1200	4.5	13.2	15	6	3	7.5	2	10	N	N	1	Y	10 Ld HMSOP, 16 Ld QFN
ISL1572	250	1200	4.5	13.2	15	6	3	7.5	2	10	N	N	1	Y	10 Ld HMSOP, 16 Ld QFN
ISL1557	300	1200	4.5	13.2	15	6	3	7.5	2	10	N	N	1	Y	10 Ld HMSOP, 16 Ld QFN
ISL1557A	300	1200	4.5	13.2	15	8.2	3	7.5	2	10	N	N	1	Y	10 Ld HMSOP, 16 Ld QFN
EL1516	350	128	5	12	5.5	1.3	6.5	3	2	9.7	N	N	2	N	8 Ld MSOP, 8 Ld SOIC
EL1516A	350	128	5	12	5.5	1.3	6.5	3	2	9.7	N	N	2	Y	10 Ld MSOP

Power Line Communications (PLC)

Line Drivers

Device	BW (MHz)	SR (V/μs)	V _S (min) (V)	V _S (max) (V)	I _S (per amp) (mA)	Noise V _N (V/μs)	I _{BIAS} (μA)	V _{OS} (max) (mV)	# of Devices/Channels	V _{OUT} (V)	Rail-to-Rail Input	Rail-to-Rail Output	Gain A _V (min)	Enable	Package
ISL1571	250	1200	4.5	13.2	15	6	3	7.5	2	10	N	N	1	Y	10 Ld HMSOP, 16 Ld QFN
ISL1572	250	1200	4.5	13.2	15	6	3	7.5	2	10	N	N	1	Y	10 Ld HMSOP, 16 Ld QFN

10G Ethernet

Device	Data Rate (G)	RMS Jitter (ps)	Half Rate	V _S (V)	Power (W)	10 GigE Compliant	JTAG	Loop Back Mode	BIST	Package
BBT3420	2.5 to 3.125	<6	X	1.5/3.3	1.4	X	X	X	X	289 Ld EBGA
BBT3821	2.5 to 3.2	<6	X	1.5/2.5	1.6	X	X	X	X	192 Ld BGA
ISL35822	2.5 to 3.2	<6	X	1.5/2.5	1.5	X	X	X	X	192 Ld BGA

Laser Diode Control

Device	# of Devices/Channels	# of Taps	Interface Type	Resistance Options (kΩ)	Single Supply	V _S Range 2.7V to 3.3V	V _S Range 2.7V to 5.5V	V _S Range 3.0V to 5.5V	V _S Range 4.5V to 5.5V	Resistance Taper	V _L -V _H (V)	Wiper Current (I _W)	Wiper Resistance (R _W @ I _W)	Standby Current I _{sb} (μA)	Package
X9520	Triple	64, 100, 256	2-Wire	10, 10, 100	Y	Y	Y	Y	Y	Linear	0V to V _{CC}	4mA	400 @ 1mA	50	20 Ld TSSOP
X9521	Dual	100, 256	2-Wire	10, 100	Y	Y	Y	Y	Y	Linear	0V to V _{CC}	4mA	400 @ 1mA	50	20 Ld TSSOP
X9522	Triple	64, 100, 256	2-Wire	10, 10, 100	Y	Y	Y	Y	Y	Linear	0V to V _{CC}	4mA	400 @ 1mA	50	20 Ld TSSOP
X9523	Dual	100, 256	2-Wire	10, 100	Y	Y	Y	Y	Y	Linear	0V to V _{CC}	4mA	400 @ 1mA	50	20 Ld TSSOP
X9525	Dual	100, 256	2-Wire	10, 50	Y	Y	Y	Y	Y	Linear	0V to V _{CC}	4mA	400 @ 1mA	50	20 Ld TSSOP

Device	Interface Type	Internal Temperature Sensor	ADC with Anti-Dither Filter Option	External Sensor Input	Internal Voltage Reference	V _{REF} Input/Output	General Purpose EEPROM	Look-Up Table Organization	Number of DACs	FSO Current DAC Setting Resistors	Current Drive Outputs	Package
X9530	2-Wire	Y	Y	Y	Y	Y	Y	Dual Bank	Dual	Ext/Int	Sink/Source	14 Ld TSSOP

SERDES

Device	Function	V _S (V)	I _S (mA)	Clock Rate (MHz)	Format	Pre-emphasis	Equalization	Diff Input Impedance (Ω)	Interface	Package
ISL34340	Transceiver	3.3	117	40	24-Bit Data + 3-Bit Control	Y	Y	100	I ² C	64 Ld EPTQFP

Voice Over IP

Subscriber Line Interface Circuits (SLICs)

Long Loop

Device	Longitudinal Balance (dB)	Polarity Reversal	Tip Open Ground Start	Integrated Battery Switch	Package
HC5503PRC	58				24 Ld SOIC, 32 Ld QFN
HC55120	53			X	28 Ld PLCC, 28 Ld SOIC
HC55121	53	X		X	28 Ld PLCC, 28 Ld SOIC
HC55130	63			X	28 Ld PLCC, 28 Ld SOIC
HC5513B	53				28 Ld PLCC
HC55140	63	X	X	X	28 Ld PLCC, 28 Ld SOIC
HC55142	63	X	X	X	28 Ld PLCC, 28 Ld SOIC
HC55150	55	X		X	28 Ld PLCC, 28 Ld SOIC
HC5515	53				28 Ld PLCC
HC5523	58				28 Ld PLCC
HC5526	53				22 Ld PDIP, 28 Ld PLCC
HC5549	53	X	X	X	28 Ld PLCC

Short Loop PBX

Device	Longitudinal Balance (dB)	V _S (V)	Loop Current Limit (mA)	Ring Relay Drivers	Package
HC5503	53	-24, +5	25	1	24 Ld SOIC
HC5503T	53	-24, +5	30		24 Ld SOIC
HC5504B	58	-48, +5	40	1	24 Ld SOIC

Ringing SLICs

Device	Longitudinal Balance (dB)	High Battery VBH	Loop Current (mA)	Integrated Battery Switch	Polarity Reversal	Package
HC55183	45	75	15 to 45	X		28 Ld PLCC
HC55184	45	75	15 to 45	X	X	28 Ld PLCC
HC55185	58/53	100/85/75	15 to 45	X	X	28 Ld PLCC, 32 Ld QFN
ISL5585	58/53	100/85/75	15 to 45	X	X	28 Ld PLCC, 32 Ld QFN
ISL5586	58/53	100/85/75	15 to 45	X	X	28 Ld PLCC

Line Card Access Switches

Device	Device Description	Prot SCR	Package
ISL5571A	Access High Voltage Switch	Yes	16 Ld SOIC

Analog Crosspoint Switches

Device	Configuration	$r_{DS(ON)}$ (Ω)	Frequency Response Typ. -3dB 14V (MHz)	Crosstalk Typ. -40dB 14V (MHz)	V_{CC} Range ($\pm V$)	Package
CD22M3494	16x8	36	50	10	4 to 15	40 Ld PDIP, 44 Ld PLCC

Precision Operational Amplifiers

Low Noise Precision Op Amps

Device	Application Use for Op Amps	# of Amps	V_S Min (V)	V_S Max (V)	I_{SS}/Amp Max	V_{OS} Max	V_{OS} Drift ($\mu V/^\circ C$ typ)	V_N @ 1kHz (nV/ \sqrt{Hz})	V_N @ 10Hz (nV/ \sqrt{Hz})	Peak Noise (0.1Hz to 10Hz), μV_{PP}	I_n @ 1kHz (pA/ \sqrt{Hz})	THD+N (%)	GBW	Slew Rate (V/ μs)	Package
ISL28190	Photodiode Preamps, LNA Preamps, Active Filters	1	3	5.5	11mA	700 μV	1.9	1	1.8	N/A	2.1	0.00017	170MHz	50	6 Ld SOT-23 T+R, 6 Ld $\mu TDFN$ T+R
ISL28290		1	3	5.5	11mA	700 μV	1.9	1	1.8	N/A	2.1	0.00017	170MHz	50	8 Ld SOIC, 10 Ld $\mu TQFN$ T+R, 10 Ld MSOP
ISL28191		1	3	5.5	3.5mA	630 μV	3.1	1.7	1.5	N/A	1.8	0.00018	61MHz	17	6 Ld SOT-23 T+R, 6 Ld $\mu TDFN$ T+R
ISL28291		2	3	5.5	3.5mA	630 μV	3.1	1.7	1.5	N/A	1.8	0.00018	61MHz	17	8 Ld SOIC, 10 Ld $\mu TQFN$ T+R, 10 Ld MSOP
ISL28136	REF Buffering, Active Filters, Datapath Control	1	2.4	5.5	1mA	150 μV	0.4	15	30	0.4	0.35		5MHz	1.9	8 Ld SOIC, 6 Ld SOT-23 T+R
ISL28138		1	2.4	5.5	1mA	300 μV	0.6	26	140	2	0.12		4.5MHz	4.8	8 Ld SOIC, 6 Ld SOT-23
EL8176		1	2.4	5.5	75 μA	100 μV	0.7	28	38	1.5	0.16		400kHz	0.13	6 Ld WLSCP T+R, 8 Ld SOIC, 6 Ld SOT-23 T+R
ISL28276		2	2.4	5.5	78 μA	100 μV	0.5	30	55	2.5	0.12		400kHz	0.17	8 Ld SOIC, 16 Ld QSOP
ISL28476		4	2.4	5.5	78 μA	100 μV	0.5	30	55	2.5	0.12		400kHz	0.17	16 Ld QSOP
ISL28266		2	2.4	5.5	43 μA	700 μV	1.5	46	80	1.5	0.14		250kHz	0.05	8 Ld SOIC, 8 Ld MSOP
ISL28278		2	2.4	5.5	78V	225 μV	1	48	100	3	0.009		300kHz	0.14	16 Ld QSOP
EL8178		1	2.5	5.5	75 μA	250 μV	1.1	48	100	2.8	15		266kHz	0.15	6 Ld WLSCP T+R, 8 Ld SOIC, 6 Ld SOT-23 T+R
ISL28288		2	2.4	5.5	78 μA	1.5mV	0.9	48	105	3	0.009		300kHz	0.14	8 Ld SOIC, 8 Ld MSOP
ISL28286		2	2.4	5.5	78 μA	600 μV	0.7	50	120	4.5	0.18		400kHz	0.17	10 Ld MSOP
ISL28258		2	2.4	5.5	43 μA	300 μV	0.3	64	150	1.4	0.19 (10kHz)		200kHz	0.1	8 Ld SOIC, 8 Ld MSOP
ISL28158		1	2.4	5.5	43 μA	300 μV	0.3	64	150	1.4	0.19 (10kHz)		200kHz	0.1	8 Ld SOIC, 6 Ld SOT-23
ISL28268		2	2.4	5.5	43 μA	1.6mV	0.3	64	150	1.4	0.19		200kHz	0.1	8 Ld SOIC, 8 Ld MSOP