

# Intersil Precision Amplifier

High Performance Analog



## Precision Operational Amplifier Selection Guide

Part Number	Amp/ Pkg	RRIO	Enable	V <sub>S</sub> Min (V)	V <sub>S</sub> Max (V)	I <sub>SS</sub> /Amp Max (μA)	V <sub>OS</sub> Max (μV)	I <sub>B</sub> Max (nA)	V <sub>N</sub> @1kHz (nV/√Hz)	GBW (kHz)	CMRR Min (dB)	PSRR Min (dB)	Package	\$ @ 1K	Status
<b>Micropower, Precision</b>															
ISL28156	1	RRIO	Y	2.4	5.5	47	400	5.0	46	250	80	90	SOT23-6	\$0.72	Released
ISL28156	1	RRIO	Y	2.4	5.5	47	120	5.0	46	250	80	90	SO8	\$0.85	Released
ISL28256	2	RRIO	N	2.4	5.5	47	400	5.0	46	250	80	90	MSOP8	\$1.15	4Q07
ISL28256	2	RRIO	N	2.4	5.5	47	120	5.0	46	250	80	90	SO8	\$1.20	4Q07
ISL28158	1	RRIO	Y	2.4	5.5	43	550	0.03	64	200	75	80	SOT23-6	\$0.72	Released
ISL28158	1	RRIO	Y	2.4	5.5	43	300	0.03	64	200	75	80	SO8	\$0.75	Released
ISL28258	2	RRIO	N	2.4	5.5	43	550	0.03	64	200	75	80	MSOP8	\$1.20	4Q07
ISL28258	2	RRIO	N	2.4	5.5	43	300	0.03	64	200	75	80	SO8	\$1.20	4Q07
<b>Low Power, Precision</b>															
EL8176	1	RRIO	Y	2.4	5.5	75	350	2.0	25	400	90	90	SOT23-6	\$0.72	Released
EL8176	1	RRIO	Y	2.4	5.5	75	100	2.0	25	400	90	90	SO8	\$0.85	Released
ISL28276	2	RRIO	Y	2.4	5.5	78	100	2.0	30	400	90	90	QSOP16	\$1.20	Released
ISL28476	4	RRIO	Y	2.4	5.5	78.75	100	2.0	30	400	90	90	QSOP16	\$1.60	Released
EL8178	1	RRIO	Y	2.5	5.5	75	250	0.025	48	266	80	80	SO8, SOT23-6	\$0.75	Released
ISL28278	2	RRIO	Y	2.4	5.5	78	225	0.03	45	300	80	85	QSOP16	\$1.20	Released
ISL28478	4	RRIO	Y	2.4	5.5	78.75	225	0.03	45	300	80	85	QSOP16	\$1.60	Released
<b>Precision</b>															
ISL28136	1	RRIO	Y	2.4	5.5	1,100	400	35.0	15	5,000	90	90	SOT23-6	\$0.70	Released
ISL28136	1	RRIO	Y	2.4	5.5	1,100	150	35.0	15	5,000	90	90	SO8	\$0.75	Released
ISL28236	2	RRIO	N	2.4	5.5	1,100	400	35.0	15	5,000	90	90	MSOP8	\$1.15	4Q07
ISL28236	2	RRIO	N	2.4	5.5	1,100	150	35.0	15	5,000	90	90	SO8	\$1.20	4Q07
ISL28436	4	RRIO	N	2.4	5.5	1,100	150	35.0	15	5,000	90	90	TSSOP14	\$1.60	4Q07
ISL28138	1	RRIO	Y	2.4	5.5	1,000	550	0.03	26	4,500	75	80	SOT23-6	\$0.65	Released
ISL28138	1	RRIO	Y	2.4	5.5	1,000	300	0.03	26	4,500	75	80	SO8	\$0.70	Released
ISL28238	2	RRIO	N	2.4	5.5	1,000	500	0.03	26	4,500	75	80	MSOP8	\$1.05	4Q07
ISL28238	2	RRIO	N	2.4	5.5	1,000	300	0.03	26	4,500	75	80	SO8	\$1.15	4Q07
ISL28438	4	RRIO	N	2.4	5.5	1,000	300	0.03	26	4,500	75	80	TSSOP14	\$1.45	4Q07
<b>Nano-Power</b>															
ISL28194	1	RRIO	Y	1.8	5.5	0.45	2,000	0.08	265	3.5	70	70	SOT23-6, μTDFN	\$0.75	Released
ISL28195	1	RRIO	Y	1.8	5.5	1.3	2,000	0.08	150	10	70	70	SOT23-6, μTDFN	\$0.69	Released
<b>Ultra-Low Noise</b>															
ISL28190	1	RRO	Y	3.0	5.5	11,000	700	16,000	1.0	170,000	78	74	SOT23-6, μTDFN	\$1.50	Released
ISL28290	2	RRO	Y	3.0	5.5	11,000	700	16,000	1.0	170,000	78	74	MSOP10, μTDFN	\$2.47	Released
ISL28191	1	RRO	Y	3.0	5.5	3,500	630	6,000	1.7	61,000	78	74	SOT23-6, μTDFN	\$1.25	Released
ISL28291	2	RRO	Y	3.0	5.5	3,500	630	6,000	1.7	61,000	78	74	MSOP10, μTDFN	\$2.25	Released
<b>Low Cost</b>															
ISL28166	1	RRIO	Y	2.4	5.5	47	600	5.0	46	250	80	90	SOT23-6	\$0.68	Released
ISL28266	2	RRIO	N	2.4	5.5	47	600	5.0	46	250	80	90	SO8, MSOP10	\$0.99	4Q07
ISL28168	1	RRIO	Y	2.4	5.5	43	1,600	0.03	64	200	75	80	SOT23-6	\$0.60	Released
ISL28268	2	RRIO	Y	2.4	5.5	43	1,600	0.03	64	200	75	80	MSOP10	\$0.85	4Q07
ISL28286	2	RRIO	Y	2.4	5.5	78	600	2.0	48	400	90	90	MSOP10	\$0.99	Released
ISL28486	4	RRIO	Y	2.4	5.5	78.75	600	2.0	48	400	90	90	QSOP16	\$1.35	Released
EL8188	1	RRIO	Y	2.4	5.5	75	1,000	0.025	48	266	80	80	SOT23-6	\$0.65	Released
ISL28288	2	RRIO	Y	2.4	5.5	78	1,500	0.03	48	300	80	85	MSOP10	\$0.85	Released
ISL28488	4	RRIO	Y	2.4	5.5	78.75	1,500	0.03	48	300	80	85	QSOP16	\$1.28	Released
ISL28146	1	RRIO	Y	2.4	5.5	1,100	400	35.0	12	5,000	90	90	SOT23-6	\$0.65	Released
ISL28246	2	RRIO	N	2.4	5.5	1,100	400	35.0	12	5,000	90	90	SO8, MSOP8	\$0.99	4Q07
ISL28446	4	RRIO	N	2.4	5.5	1,100	400	35.0	12	5,000	90	90	TSSOP14	\$1.35	4Q07
ISL28148	1	RRIO	Y	2.4	5.5	1,100	1,800	0.03	26	4,500	75	80	SOT23-6	\$0.60	Released
ISL28248	2	RRIO	N	2.4	5.5	1,100	1,800	0.03	26	4,500	75	80	SO8, MSOP8	\$0.85	4Q07
ISL28448	4	RRIO	N	2.4	5.5	1,100	1,800	0.03	26	4,500	75	80	TSSOP14	\$1.28	4Q07

# Intersil Precision Voltage Reference

High Performance Analog



## Precision Voltage Reference Selection Guide

Part Number	V <sub>O</sub> (V)	V <sub>IN</sub> (Min) (V)	V <sub>IN</sub> (Max) (V)	Initial Acc. (mV)	Tempco (ppm/°C)	Output Current (mA)	Max. I <sub>SS</sub>	e <sub>N</sub> (Typ) (μV <sub>p-p</sub> )	Temp Range (°C)	Package	USD\$ @ 1Ku	Status
ISL21032BPH306Z	0.6	2.7	5.5	+1.0	2mV	+7/-7	25μA	30	-40 to 130	SOT-23	\$2.64	Released
ISL21032CPH306Z	0.6	2.7	5.5	+2.5	2mV	+7/-7	25μA	30	-40 to 130	SOT-23	\$1.45	Released
ISL21032DPH306Z	0.6	2.7	5.5	+5.0	1mV	+7/-7	25μA	30	-40 to 130	SOT-23	\$0.95	Released
ISL60002BIH310Z	1.024	2.7	5.5	+1.0	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$2.64	Released
ISL60002CIH310Z	1.024	2.7	5.5	+2.5	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$1.45	Released
ISL60002DIH310Z	1.024	2.7	5.5	+5.0	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$0.95	Released
ISL60002BIH311Z	1.2	2.7	5.5	+1.0	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$2.64	Released
ISL60002CIH311Z	1.2	2.7	5.5	+2.5	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$1.45	Released
ISL60002DIH311Z	1.2	2.7	5.5	+5.0	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$0.95	Released
ISL60002BIH312Z	1.25	2.7	5.5	+1.0	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$2.64	Released
ISL60002CIH312Z	1.25	2.7	5.5	+2.5	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$1.45	Released
ISL60002DIH312Z	1.25	2.7	5.5	+5.0	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$0.95	Released
ISL21009BFB812Z	1.25	3.5	16.5	+0.5	3	+7/-7	180μA	4.5	-40 to 125	SO8	\$4.04	3Q07
ISL21009CFB812Z	1.25	3.5	16.5	+1.0	5	+7/-7	180μA	4.5	-40 to 125	SO8	\$3.74	3Q07
ISL21009DFB812Z	1.25	3.5	16.5	+2.0	10	+7/-7	180μA	4.5	-40 to 125	SO8	\$2.64	3Q07
ISL21007BFB812Z	1.25	2.7	5.5	+0.5	3	+7/-7	150μA	4.5	-40 to 125	SO8	\$4.04	Released
ISL21007CFB812Z	1.25	2.7	5.5	+1.0	5	+7/-7	150μA	4.5	-40 to 125	SO8	\$3.74	Released
ISL21007DFB812Z	1.25	2.7	5.5	+2.0	10	+7/-7	150μA	4.5	-40 to 125	SO8	\$2.64	Released
ISL60002BIH318Z	1.8	2.7	5.5	+1.0	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$2.65	Released
ISL60002CIH318Z	1.8	2.7	5.5	+2.5	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$1.45	Released
ISL60002DIH318Z	1.8	2.7	5.5	+5.0	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$0.95	Released
ISL60002BIH320Z	2.048	2.7	5.5	+1.0	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$2.65	Released
ISL60002CIH320Z	2.048	2.7	5.5	+2.5	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$1.45	Released
ISL60002DIH320Z	2.048	2.7	5.5	+5.0	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$0.95	Released
ISL21007BFB820Z	2.048	2.7	5.5	+0.5	3	+7/-7	150μA	4.5	-40 to 125	SO8	\$4.04	3Q07
ISL21007CFB820Z	2.048	2.7	5.5	+1.0	5	+7/-7	150μA	4.5	-40 to 125	SO8	\$3.74	3Q07
ISL21007DFB820Z	2.048	2.7	5.5	+2.0	10	+7/-7	150μA	4.5	-40 to 125	SO8	\$2.64	3Q07
ISL60002BIH325Z	2.5	2.7	5.5	+1.0	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$2.65	Released
ISL60002CIH325Z	2.5	2.7	5.5	+2.5	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$1.45	Released
ISL60002DIH325Z	2.5	2.7	5.5	+5.0	20	+7/-7	700nA	30	-40 to 85	SOT-23	\$0.95	Released
ISL21009BFB825Z	2.5	3.5	16.5	+0.5	3	+7/-7	180μA	4.5	-40 to 125	SO8	\$4.04	Released
ISL21009CFB825Z	2.5	3.5	16.5	+1.0	5	+7/-7	180μA	4.5	-40 to 125	SO8	\$3.74	Released
ISL21009DFB825Z	2.5	3.5	16.5	+2.0	10	+7/-7	180μA	4.5	-40 to 125	SO8	\$2.64	Released
ISL21007BFB825Z	2.5	2.7	5.5	+0.5	3	+7/-7	150μA	4.5	-40 to 125	SO8	\$4.04	Released
ISL21007CFB825Z	2.5	2.7	5.5	+1.0	5	+7/-7	150μA	4.5	-40 to 125	SO8	\$3.74	Released
ISL21007DFB825Z	2.5	2.7	5.5	+2.0	10	+7/-7	150μA	4.5	-40 to 125	SO8	\$2.64	Released
ISL60002BIH330Z	3.0	3.5	5.5	+1.0	20	+7/-7	700nA	30	-40 to 105	SOT-23	\$2.65	Released
ISL60002CIH330Z	3.0	3.5	5.5	+2.5	20	+7/-7	700nA	30	-40 to 105	SOT-23	\$1.45	Released
ISL60002DIH330Z	3.0	3.5	5.5	+5.0	20	+7/-7	700nA	30	-40 to 105	SOT-23	\$0.95	Released
ISL60002BAH333Z	3.3	3.5	5.5	+1.0	20	+7/-7	700nA	30	-40 to 105	SOT-23	\$2.65	Released
ISL60002CAH333Z	3.3	3.5	5.5	+2.5	20	+7/-7	700nA	30	-40 to 105	SOT-23	\$1.45	Released
ISL60002DAH333Z	3.3	3.5	5.5	+5.0	20	+7/-7	700nA	30	-40 to 105	SOT-23	\$0.95	Released
X60003BIG3Z-41	4.096	4.5	9.0	+1.0	10	+10/-10	900nA	30	-40 to 85	SOT-23	\$2.65	Released
X60003CIG3Z-41	4.096	4.5	9.0	+2.5	20	+10/-10	900nA	30	-40 to 85	SOT-23	\$1.45	Released
X60003DIG3Z-41	4.096	4.5	9.0	+5.0	20	+10/-10	900nA	30	-40 to 85	SOT-23	\$0.95	Released
ISL21009BFB841Z	4.096	4.5	16.5	+0.5	3	+5/-5	180μA	4.5	-40 to 125	SO8	\$4.04	Released
ISL21009CFB841Z	4.096	4.5	16.5	+1.0	5	+5/-5	180μA	4.5	-40 to 125	SO8	\$3.74	Released
ISL21009DFB841Z	4.096	4.5	16.5	+2.0	10	+5/-5	180μA	4.5	-40 to 125	SO8	\$2.64	Released
X60003BIG3Z-50	5	5.1	9.0	+1.0	10	+10/-10	900nA	30	-40 to 85	SOT-23	\$2.65	Released
X60003CIG3Z-50	5	5.1	9.0	+2.5	20	+10/-10	900nA	30	-40 to 85	SOT-23	\$1.45	Released
X60003DIG3Z-50	5	5.1	9.0	+5.0	20	+10/-10	900nA	30	-40 to 85	SOT-23	\$0.95	Released
ISL21009BFB850Z	5	5.5	16.5	+0.5	3	+7/-7	180μA	4.5	-40 to 125	SO8	\$4.04	Released
ISL21009CFB850Z	5	5.5	16.5	+1.0	5	+7/-7	180μA	4.5	-40 to 125	SO8	\$3.74	Released
ISL21009DFB850Z	5	5.5	16.5	+2.0	10	+7/-7	180μA	4.5	-40 to 125	SO8	\$2.64	Released

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