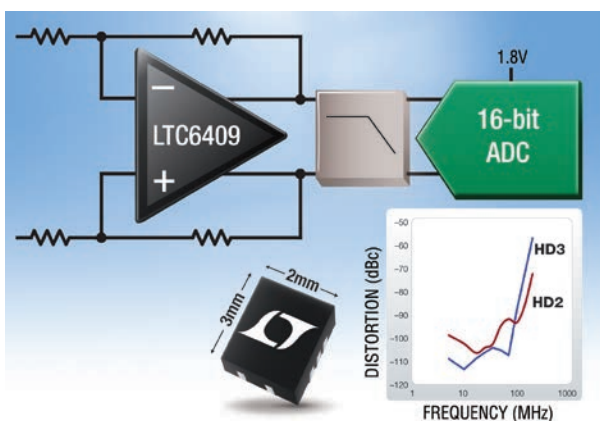


High Speed Amplifiers/ADC Drivers

DC Coupled Differential Amplifiers /ADC Drivers											
Part Number	Voltage Gain (dB)	BW 70dB IM3 (MHz)	BW 80dB IM3 (MHz)	BW 90dB IM3 (MHz)	Total Input-Referred Noise (nV/Hz)	Slew Rate (V/ μ s)	1% Settling Time (ns)	Output DC Common Mode Range (V)	V _S (Min) (V)	V _S (Max) (V)	I _S per Amp (mA)
LTC6409	0 to 50 (R _{EXT})	>200	180	110	1.1	3300	1.9	0.5 to 3.5	2.7	5.25	52
LTC6417	0	>380	140	50	–	10000	0.8	0.65 to 1.85	4.75	5.25	123
LTC6416	0	350	110	–	1.8	3400	1.8	0.55 to 2.0	2.7	3.9	42
LTC6400-26	26	230	140	10	1.5	6670	2	1.1 to 1.5	2.85	3.5	85
LTC6400-20	20	210	160	100	2.2	4500	0.8	1.1 to 1.5	2.85	3.5	90
LTC6400-14	14	200	130	70	2.5	4800	1.7	1.1 to 1.5	2.85	3.5	85
LTC6400-8	8	190	130	70	3.7	3810	1.8	1.1 to 1.5	2.85	3.5	85
LTC6401-8	8	140	80	–	3.2	3400	2.3	1.1 to 1.5	2.85	3.5	45
LTC6401-14	14	140	65	–	2.5	3600	1.8	1.1 to 1.5	2.85	3.5	45
LTC6401-20	20	120	40	–	2.1	4500	2	1.1 to 1.5	2.85	3.5	50
LTC6401-26	26	90	10	–	1.5	3300	3	1.1 to 1.5	2.85	3.5	45
LT1993-10	20	70	50	22	2	1100	4	1.4 to 3.4	4	5.5	100
LT1993-4	12	70	50	20	2.25	1100	4	1.4 to 3.4	4	5.5	100
LT1993-2	6	60	48	20	3.65	1100	4	1.3 to 3.4	4	5.5	100
LT6411	0 or 6	50	20	8	8	3300	6 (0.1%)	V ⁻ +1 / V ⁺ -1	4.5	12	16
LTC6404-2 (A _V > 2)	>6	50 (HD2/3)	30 (HD2/3)	20 (HD2/3)	1.5	700	12 (0.1%)	1.1 to 4.0	2.7	5.25	30.4
LTC6404-4 (A _V > 4)	>12	–	25 (HD2/3)	14 (HD2/3)	1.5	1200	11 (0.1%)	1.1 to 3.7	2.7	5.25	31
LTC6405	0 to 40 (R _{EXT})	40	30	18	1.6	690	11 (0.1%)	0.5 to 4.0	4.5	5.5	18
LTC6406	0 to 40 (R _{EXT})	–	20	12	1.6	630	11 (0.1%)	0.5 to 2.0	2.7	3.5	18
LTC6404-1	0	30 (HD2/3)	13 (HD2/3)	10	1.5	450	13 (0.1%)	1.1 to 4.0	2.7	5.25	27.8
LT6402-20	20	35	22	20	1.85	400	8	1.4 to 3.4	4	5.5	30
LT6402-12	12	28	20	8	2.7	400	10	1.4 to 3.4	4	5.5	30
LT6402-6	6	18	12	–	3.8	400	10	1.4 to 3.4	4	5.5	30
LTC6403-1	0 to 40 (R _{EXT})	10	–	–	2.8	200	30 (0.1%)	1.1 to 4.0	2.7	5.25	11
LTC6410-6	6	10	–	–	4.3	1500	3	1.2 to 1.8	2.8	5.25	104
LT1994	0	–	2 (HD2/3)	1.5 (HD2/3)	3	65	90 (0.1%)	1.1 to 11.8	2.375	12.6	14
Dual DC Coupled Fixed Gain IF Differential Amplifiers /ADC Drivers											
LTC6420-20	20	250	140	50	2.2	4500	0.8	1.1 to 1.6	2.85	3.5	80
LTC6421-20	20	120	50	–	2.2	4500	2	1 to 1.6	2.85	3.5	40



LTC6409

- 88dB SFDR at 100MHz, 2V_{P-P}
- 1.1nV/ $\sqrt{\text{Hz}}$ Input Noise Density
- 0.5V to 3.5V Output Common Mode Voltage
- Input Range Includes Ground

AC Coupled Fixed Gain RF/IF Differential Amplifier /ADC Drivers											
Part Number	Volt. Gain (dB)	Freq. Range (MHz)	BW 50dBm OIP3 (MHz)	BW 45dBm OIP3 (MHz)	BW 40dBm OIP3 (MHz)	OP1dB at 240MHz (dBm)	NF at 240MHz (dB)	V _S (Min) (V)	V _S (Max) (V)	I _S (mA)	
LTC6430A-20	20	20 to 2060	300	900	>1000	24.7 (380MHz)	3.05 (380MHz)	4.75	5.25	170	
LTC6430B-20	20	20 to 2060	–	700	>1000	24.7 (380MHz)	3.05 (380MHz)	4.75	5.25	170	
LTC6430A-15	15	20 to 2000	240	700	>1000	24.1	3	4.75	5.25	160	
LTC6430B-15	15	20 to 2000	–	600	>1000	24.1	3	4.75	5.25	160	
AC Coupled Fixed Gain RF/IF Single-Ended Amplifier Gain Block											
LTC6431A-20	20	20 to 2000	–	380	700	22	2.6	4.75	5.25	93	
LTC6431B-20	20	20 to 2000	–	240	600	22	2.6	4.75	5.25	93	
LTC6431A-15	15	20 to 2000	–	400	700	20.6	3.33	4.75	5.25	85	
LTC6431B-15	15	20 to 2000	–	380	600	20.6	3.33	4.75	5.25	85	

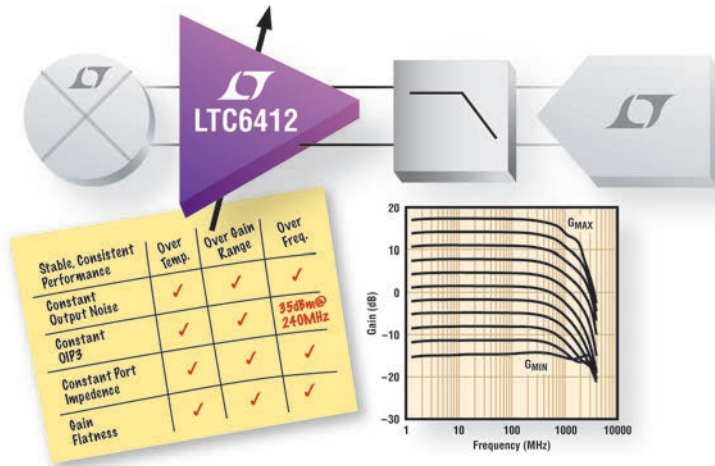


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Variable Gain Amplifiers

VGAs for IF and Baseband Applications

Part Number	Gain Control	Gain Range (dB)	Gain Steps (dB)	OIP3 (dBm)	NF (dB)	V _S (Min) (V)	V _S (Max) (V)	I _S (mA)
LTC6412	Analog	-14 to 17	Continuous	35 at 240MHz	9.5	3	3.6	110
LT5554	Digital	1.725 to 17.6	0.125	48 at 200MHz	10.3	4.75	5.25	200
LT5524	Digital	4.5 to 27	1.5	40 at 50MHz	8.6	4.75	5.25	75
LT5514	Digital	10.5 to 33	1.5	47 at 50MHz	7.3	4.75	5.25	148



LTC6412

- 800MHz -3dB Small-Signal Bandwidth
- Continuously Adjustable Gain Control
- -14dB to +17dB Linear-in-dB Gain Range
- 35dBm OIP3 at 240MHz Across All Gain Settings
- 10dB Noise Figure at Maximum Gain
- (IIP3 - NF) = +8dBm at 240MHz Across All Gains
- 2.7nV/√Hz Input Referred Noise
- Differential Inputs and Outputs
- 50Ω Input Impedance Across All Gains

Integrated Differential Filters/ADC Drivers

Single Broadband Integrated Differential Filters/ADC Drivers

Part Number	Filter Order	Cut-Off Frequency Range (MHz)	Gain (dB)	HD2/HD3 (dBc)	Total Input-Ref. Noise (nV/√Hz)	V _S (Min) (V)	V _S (Max) (V)	I _S (mA)
LTC6601-1	2nd	5 to 28	-17 to 17	-72 at 10MHz	2.1	2.7	5.25	33
LTC6601-2	2nd	5 to 27	-17 to 17	-65 at 10MHz	5.2	2.7	5.25	16
LT6600-20	4th	20	Resistor Set	-83 at 2.5MHz	16	3	11	42
LT6600-15	4th	15	Resistor Set	-86 at 1MHz	19	3	11	35
LT6600-10	4th	10	Resistor Set	-88 at 1MHz	14	3	11	35
LT6600-5	4th	5	Resistor Set	-93 at 1MHz	16	3	11	28
LT6600-2.5	4th	2.5	Resistor Set	-88 at 1MHz	25	3	11	26

Dual Broadband Integrated Differential Filters/ADC Drivers

Part Number	Filter Order	Cut-Off Frequency Range (MHz)	Gain (dB)	HD2/HD3 (dBc)	Gain Match Max (dB)	Total Input-Ref. Noise (nV/√Hz)	V _S (Min) (V)	V _S (Max) (V)	I _S per Amplifier (mA)
LTC6605-14	2nd	12.4 to 25	0, 6, 9.5	-81 at 7MHz	0.25	2.1	2.7	5.25	33
LTC6605-10	2nd	9.7 to 14	0, 12, 14	-90 at 5MHz	0.35	2.1	2.7	5.25	33
LTC6605-7	2nd	6.5 to 10	0, 12, 14	-96 at 3MHz	0.35	2.1	2.7	5.25	33
LT6604-15	4th	15	Resistor Set	-86 at 1MHz	0.6	19	3	11	35
LT6604-10	4th	10	Resistor Set	-88 at 1MHz	0.7	14	3	11	35
LT6604-5	4th	5	Resistor Set	-93 at 1MHz	0.6	16	3	11	28
LT6604-2.5	4th	2.5	Resistor Set	-88 at 1MHz	0.6	25	3	11	26
LT1568	2nd	0.2 to 5	Resistor Set	-84 at 2MHz	0.25	18μV _{RMS}	2.7	11	26
LTC6603	9th	24kHz to 2.5MHz	0 to 24	-75 at 1MHz	0.15	40	2.7	36	44
LTC6602	5th	4.2kHz to 900kHz	0 to 30	-82 at 300kHz	0.2	20	2.7	36	33