

Comlinear[™] CLC1605, CLC3605 Single and Triple, 1.4GHz Amplifiers

FEATURES

- 0.1dB gain flatness to 120MHz
- 0.02%/0.02° differential gain/phase
- 1.4GHz -3dB bandwidth at G = 2
- 650MHz large signal bandwidth
- 2,500V/µs slew rate
- $5nV/\sqrt{Hz}$ input voltage noise
- 120mA output current
- Triple offers disable
- Fully specified at 5V and ±5V supplies
- CLC1605: Lead-free SOT23-6
- CLC3605: Lead-free TSSOP-16

APPLICATIONS

- RGB video line drivers
- High definition video driver
- Video switchers and routers
- ADC buffer
- Active filters
- High-speed instrumentation
- Wide dynamic range IF amp
- Radar/communication receivers

General Description

The *Comlinear* CLC1605 (single) and CLC3605 (triple) are high-performance, current feedback amplifiers that provide 1.4GHz gain of 2 bandwidth, ± 0.1 dB gain flatness to 120MHz, and 2,500V/µs slew rate. This high performance exceeds the requirements of high-definition television (HDTV) and other multimedia applications. These *Comlinear* high-performance amplifiers also provide ample output current to drive multiple video loads.

The *Comlinear* CLC1605 and CLC3605 are designed to operate from \pm 5V or +5V supplies. The CLC3605 offers a fast enable/disable feature to save power. While disabled, the outputs are in a high-impedance state to allow for multiplexing applications. The combination of high-speed, low-power, and excellent video perfomance make these amplifiers well suited for use in many general purpose, high-speed applications including high-definition video, imaging applications, and radar/communications receivers.

Typical Application - TBD

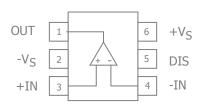
Ordering Information

Part Number	Package	Pb-Free	Operating Temperature Range	Packaging Method
CLC1605IST6X*	SOT23-6	Yes	-40°C to +85°C	Reel
CLC1605IST6*	SOT23-6	Yes	-40°C to +85°C	Rail
CLC3605ITP16X*	TSSOP-16	Yes	-40°C to +85°C	Reel
CLC3605ITP16*	TSSOP-16	Yes	-40°C to +85°C	Rail

*Preliminary Product Information

Moisture sensitivity level for all parts is MSL-1.

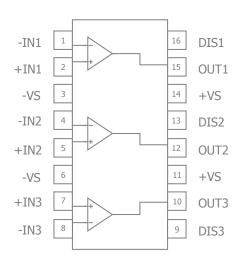
CLC1605 Pin Configuration



CLC1605 Pin Assignments

Pin No.	Pin Name	Description
1	OUT	Output
2	-V _S	Negative supply
3	+IN	Positive input
4	-IN	Negative input
5	DIS	Disable pin. Enabled if pin is grounded, left floating or pulled below V_{ON} , disabled if pin is pulled above V_{OFF} .
6	+V _S	Positive supply

CLC3605 Pin Configuration



CLC3605 Pin Configuration

Pin No.	Pin Name	Description
1	-IN1	Negative input, channel 1
2	+IN1	Positive input, channel 1
3	-Vs	Negative supply
4	-IN2	Negative input, channel 2
5	+IN2	Positive input, channel 2
6	-Vs	Negative supply
7	+IN3	Positive input, channel 3
8	-IN3	Negative input, channel 3
9	DIS3	Disable pin. Enabled if pin is grounded, left floating or pulled below $V_{\mbox{ON}}$, disabled if pin is pulled above $V_{\mbox{OFF}}$.
10	OUT3	Output, channel 3
11	+V _S	Positive supply
12	OUT2	Output, channel 2
13	DIS2	Disable pin. Enabled if pin is grounded, left floating or pulled below $V_{\mbox{ON}}$, disabled if pin is pulled above $V_{\mbox{OFF}}$.
14	+V _S	Positive supply
15	OUT1	Output, channel 1
16	DIS1	Disable pin. Enabled if pin is grounded, left floating or pulled below $V_{\rm ON},$ disabled if pin is pulled above $V_{\rm OFF}.$

Disable Pin Truth Table

Pin	High	Low*
DIS	Disabled	Enabled

*Default Open State

Absolute Maximum Ratings

The "Absolute Maximum Ratings" are those values beyond which the safety of the device cannot be guaranteed. The device should not be operated at these limits. The parametric values defined in the Electrical Characteristics tables are not guaranteed at the absolute maximum ratings. The "Recommended Operating Conditions" table defines the conditions for actual device operation.

Parameter	Min	Max	Unit
Supply Voltage	0	14	V
Input Voltage Range	-V _s -0.5V	+V _s +0.5V	V

Reliability Information

Parameter	Min	Тур	Max	Unit
Junction Temperature			150	°C
Storage Temperature Range	-65		150	°C
Lead Temperature (Soldering, 10s)			300	°C
Package Thermal Resistance				
6-Lead SOT23		TBD		°C/W
16-Lead TSSOP		TBD		°C/W

Notes:

Package thermal resistance (θ_{JA}), JDEC standard, multi-layer test boards, still air.

ESD Protection

Product	SOT23-6	TSSOP-16
Human Body Model (HBM)	2kV	2kV
Charged Device Model (CDM)	1kV	1kV

Notes:

0.8 kV between the input pairs (+IN and -IN) pins only. All other pins are 2kV.

Recommended Operating Conditions

Parameter	Min	Тур	Max	Unit
Operating Temperature Range	-40		+85	°C
Supply Voltage Range	4.5		12	V

Electrical Characteristics at +5V

 T_A = 25°C, V_s = +5V, R_f = R_g =330 Ω , R_L = 150 Ω to $V_S/2,$ G = 2; unless otherwise noted.

BW _{SS} -3dB Ba BW _{LS} Large Si BW _{0.1dBSS} 0.1dB G BW _{0.1dBLS} 0.1dB G Time Domain -sponse t _R , t _F Rise and t _S Settling OS Overshord SR Slew Ra Distortion/Novershord Sread THD2 2nd Har HD3 3rd Har D _G Differen D _G Differen IP3 Third Or SFDR Spurious e _n Input Q t _n Crosstal DC Performate Input Q dV _{IO} Avera I _{bn} Input Bi dI _{bn} Avera	in Bandwidth ndwidth gnal Bandwidth ain Flatness ain Flatness d Fall Time Time to 0.1% bot te nse monic Distortion monic Distortion monic Distortion	$ \begin{array}{c} G = +1, V_{OUT} = 0.2V_{pp}, R_{f} = xxx\Omega \\ G = +2, V_{OUT} = 0.2V_{pp} \\ G = +2, V_{OUT} = 1V_{pp} \\ G = +2, V_{OUT} = 0.2V_{pp} \\ G = +2, V_{OUT} = 2V_{pp} \\ \end{array} \\ \hline \\ V_{OUT} = 1V \text{ step; (10\% to 90\%)} \\ V_{OUT} = 1V \text{ step; (10\% to 90\%)} \\ V_{OUT} = 1V \text{ step} \\ V_{OUT} = 0.2V \text{ step} \\ 2V \text{ step} \\ \hline \\ \hline \\ V_{OUT} = 1V_{pp'} \text{ 5MHz} \\ V_{OUT} = 1V_{pp}, \text{ 5MHz} \\ \end{array} $		TBD 800 450 100 TBD 1.2 10 TBD 1500		MHz MHz MHz MHz MHz ns ns ns % V/µs
BW _{SS} -3dB Ba BW _{LS} Large Si BW _{0.1dBSS} 0.1dB G BW _{0.1dBLS} 0.1dB G Time Domain csponse t _R , t _F Rise and t _S Settling OS Overshot SR Slew Ra Distortion/Nover Response HD2 HD2 2nd Har HD3 3rd Har THD Total Har D _G Differen IP3 Third Or SFDR Spurious e _n Input Qa X _{TALK} Crosstal DC Performator Avera I _{bn} Input Qa dV _{IO} Avera I _{bn} Input Bi dI _{bn} Avera	ndwidth gnal Bandwidth ain Flatness ain Flatness d Fall Time Time to 0.1% not te nse monic Distortion monic Distortion monic Distortion	$G = +2$, $V_{OUT} = 0.2V_{pp}$ $G = +2$, $V_{OUT} = 1V_{pp}$ $G = +2$, $V_{OUT} = 0.2V_{pp}$ $G = +2$, $V_{OUT} = 2V_{pp}$ $V_{OUT} = 1V$ step; (10% to 90%) $V_{OUT} = 1V$ step $V_{OUT} = 0.2V$ step $2V$ step $V_{OUT} = 1V_{pp}$, 5MHz		800 450 TBD 1.2 10 TBD		MHz MHz MHz MHz ns ns %
BWLS Large Si BW0.1dBSS 0.1dB G BW0.1dBLS 0.1dB G Time Domain Exponse t_R , t_F Rise and t_S Settling OS Overshold SR Slew Ration Distortion/Noise Response HD2 2nd Hart HD3 3rd Hart THD Total Hart Dg Different Dg Different IP3 Third Or SFDR Spurious e_n Input Vart X_{TALK} Crosstal DC Performator Input Or dV_{IO} Averation I_{bn} Input Bi dI_{bn} Averation I_{bi} Input Bi dI_{bi} Averation	gnal Bandwidth ain Flatness ain Flatness d Fall Time Time to 0.1% oot te nse monic Distortion monic Distortion rmonic Distortion	$G = +2$, $V_{OUT} = 1V_{pp}$ $G = +2$, $V_{OUT} = 0.2V_{pp}$ $G = +2$, $V_{OUT} = 2V_{pp}$ $V_{OUT} = 1V$ step; (10% to 90%) $V_{OUT} = 1V$ step $V_{OUT} = 0.2V$ step $2V$ step $V_{OUT} = 1V_{pp}$, 5MHz		450 100 TBD 1.2 10 TBD		MHz MHz MHz ns ns %
BW0.1dBLS 0.1dB G BW0.1dBLS 0.1dB G Time Domain Response t _R , t _F Rise and t _S Settling OS Overshold SR Slew Ra Distortion/Noise Response HD2 2nd Har HD3 3rd Har THD Total Har DG Differen DG Differen DG Differen DG Differen IP3 Third Or SFDR Spurious e _n Input Q i _n Crosstal DC Performator VIO VIO Input Q dV _{IO} Avera I _{bn} Input Bi dI _{bn} Avera I _{bi} Avera	ain Flatness ain Flatness I Fall Time Time to 0.1% not te nse monic Distortion monic Distortion monic Distortion	$G = +2$, $V_{OUT} = 0.2V_{pp}$ $G = +2$, $V_{OUT} = 2V_{pp}$ $V_{OUT} = 1V$ step; (10% to 90%) $V_{OUT} = 1V$ step $V_{OUT} = 0.2V$ step $2V$ step $V_{OUT} = 1V_{pp}$, 5MHz		100 TBD 1.2 10 TBD		MHz MHz ns ns %
BW _{0.1dBLS} 0.1dB G Time Domain Response t _R , t _F Rise and t _S Settling OS Oversho SR Slew Ra Distortion/Noise Response ThD HD2 2nd Har HD3 3rd Har THD Total Ha D _G Differen IP3 Third Or SFDR Spurious e _n Input Va i _n Crosstal DC Performate Crosstal DV _{IO} Input Of dV _{IO} Avera I _{bn} Input Bi dI _{bn} Avera I _{bi} Avera	ain Flatness I Fall Time Time to 0.1% oot te nse monic Distortion rmonic Distortion	$G = +2, V_{OUT} = 2V_{pp}$ $V_{OUT} = 1V \text{ step; (10\% to 90\%)}$ $V_{OUT} = 1V \text{ step}$ $V_{OUT} = 0.2V \text{ step}$ $2V \text{ step}$ $V_{OUT} = 1V_{pp'}, 5MHz$		TBD 1.2 10 TBD		MHz ns ns %
Time Domain Response t_{Rr} , t_F Rise and t_S Settling OS Overshot SR Slew Ra Distortion/Nover Response Response HD2 2nd Har HD3 3rd Har THD Total Har Dg Differen Dg Differen IP3 Third Or SFDR Surjour en Input Var X _{TALK} Crosstal DC Performation Input Or VIO Input Or dVIO Avera Ibin Input Bi dIbin Avera Ibi Input Bi OLibi Avera	I Fall Time Time to 0.1% oot te monic Distortion monic Distortion rmonic Distortion	$V_{OUT} = 1V$ step; (10% to 90%) $V_{OUT} = 1V$ step $V_{OUT} = 0.2V$ step $2V$ step $V_{OUT} = 1V_{pp}$, 5MHz		1.2 10 TBD		ns ns %
t_{R} , t_F Rise and SettlingOSSettlingOSOversholdSRSlew RaDistortion/NoiseResponsionHD22nd HarHD33rd HarrTHDTotal HarDGDifferenDGDifferenDPDifferenIP3Third OrSFDRSpurious e_n Input Vo i_n CrosstalDC PerformatorVIOVIOInput OfdVIOAvera I_{bn} Input BidIbinAvera I_{bi} Input BidIbiAveraInput BiInput BidIbiAvera	I Fall Time Time to 0.1% oot te nse monic Distortion monic Distortion rmonic Distortion	V _{OUT} = 1V step V _{OUT} = 0.2V step 2V step V _{OUT} = 1V _{pp} , 5MHz		10 TBD		ns %
t _S Settling OS Overshot SR Slew Ra Distortion/Novershot Slew Ra Distortion/Novershot Slew Ra Distortion/Novershot Slew Ra Distortion/Novershot Slew Ra HD2 2nd Har HD3 3rd Har THD Total Har D _G Differen D _P Differen IP3 Third Or SFDR Spurious e _n Input Var i _n Crosstal DC Performator VIO VIO Input Or dV _{IO} Avera I _{bn} Input Bi dI _{bn} Avera I _{bi} Avera	Time to 0.1% not te monic Distortion monic Distortion rmonic Distortion	V _{OUT} = 1V step V _{OUT} = 0.2V step 2V step V _{OUT} = 1V _{pp} , 5MHz		10 TBD		ns %
OS Overshol SR Slew Ra Distortion/Noise Response Slew Ra Distortion/Noise Response Slew Ra HD2 2nd Har HD3 3rd Har THD Total Ha D _G Differen D _P Differen IP3 Third Or SFDR Spurious e _n Input Va i _n Crosstal DC Performation Crosstal DC Performation Avera I _{bn} Input Of dV _{IO} Avera I _{bi} Avera	not te nse monic Distortion nonic Distortion rmonic Distortion	V _{OUT} = 0.2V step 2V step V _{OUT} = 1V _{pp} , 5MHz		TBD		%
SR Slew Rat Distortion/Not-response HD2 2nd Har HD3 3rd Har THD Total Har DG Different DP Different IP3 Third Or SFDR Spurious en Input Vat X _{TALK} Crosstal DC Performative Input Of VIO Averation Ibn Input Bit dIbn Averation Ibi Averation	te Ise monic Distortion monic Distortion rmonic Distortion	2V step V _{OUT} = 1V _{pp} , 5MHz				
Distortion/Noise Response HD2 2nd Har HD3 3rd Har THD Total Har DG Differen DP Differen IP3 Third Or SFDR Spurious e_n Input Var i_n Crosstal DC Performate Input Or V_{IO} Input Or dV_{IO} Averation I_{bn} Input Bi dI_{bn} Averation I_{bi} Input Bi dI_{bi} Averation	nse monic Distortion monic Distortion rmonic Distortion	V _{OUT} = 1V _{pp} , 5MHz		1500		V/µs
HD22nd HarHD33rd HarTHDTotal Ha D_G DifferenD P DifferenIP3Third OrSFDRSpurious e_n Input Vo i_n Input Co X_{TALK} CrosstalDC PerformationInput Of dV_{IO} Input Of dV_{IO} Input Of dV_{IO} Input Bi dI_{bn} Avera I_{bi} Input Bi dI_{bi} Avera	monic Distortion nonic Distortion rmonic Distortion	PP				
HD3 3rd Harr THD Total Harr D _G Differen D _P Differen IP3 Third Or SFDR Spurious e _n Input Va i _n Input Va X _{TALK} Crosstal DC Performation Input Of V _{IO} Input Of dV _{IO} Averation I _{bn} Input Bi dI _{bn} Averation I _{bi} Averation	nonic Distortion rmonic Distortion	PP				
THD Total Ha DG Differen DP Differen IP3 Third Or SFDR Spurious en Input Vo in Input Vo XTALK Crosstal DC Performation Input Or VIO Input Or dVIO Averation Ibin Input Bi dIbin Averation Ibin Averation Ibin Averation Ibin Averation Ibin Averation Ibin Averation	rmonic Distortion	$V_{OUT} = 1V_{ppr}, 5MHz$		-61		dBc
D _G Differen D _P Differen IP3 Third Or SFDR Spurious e _n Input Va i _n Input Ca X _{TALK} Crosstal DC Performarce VIO VIO Input Of dV _{IO} Avera I _{bn} Input Bi dI _{bi} Avera				-61		dBc
Dp Different IP3 Third Or SFDR Spurious en Input Val in Input Cal X _{TALK} Crosstal DC Performation Crosstal V _{IO} Input Of dV _{IO} Averation Ibn Input Bi dIbn Averation Ibi Averation	tial Gain	$V_{OUT} = 1V_{pp'} 5MHz$		58		dB
IP3 Third Or SFDR Spurious en Input Vo in Input Co X _{TALK} Crosstal DC Performance Input Or dV _{IO} Input Or dV _{IO} Averation Ibn Input Bi dI _{bn} Averation Ibi Input Bi dI _{bi} Averation		NTSC (3.58MHz), DC-coupled, $R_L = 150\Omega$		0.02		%
SFDR Spurious en Input Vale in Input Cale XTALK Crosstal DC Performance Input Of dVIO Input Of dVIO Averation Ibn Input Bi dIbn Averation Ibi Input Bi dIbi Averation	tial Phase	NTSC (3.58MHz), DC-coupled, $R_L = 150\Omega$		0.02		0
e _n Input Va i _n Input Va X _{TALK} Crosstal DC Performative V _{IO} Input Of dV _{IO} Avera I _{bn} Input Bi dI _{bn} Avera I _{bi} Avera	der Intercept	$V_{OUT} = 0.5 V_{pp}$, 10MHz		28		dBm
i _n Input Cu X _{TALK} Crosstal DC Performance V _{IO} Input Of dV _{IO} Avera I _{bn} Input Bi dI _{bn} Avera I _{bi} Avera	s Free Dynamic Range	$V_{OUT} = 1V_{pp'}$ 5MHz		61		dBc
i _n Input Cu X _{TALK} Crosstal DC Performarce V _{IO} Input Of dV _{IO} Avera I _{bn} Input Bi dI _{bn} Avera I _{bi} Avera	oltage Noise	> 1MHz		5		nV/√Hz
X Crosstal DC Performance Input Of VIO Input Of dVIO Averation Ibn Input Bi dIbn Averation Ibi Input Bi dIbi Averation		> 1MHz, Inverting		20		pA/√Hz
VIO Input Of VIO Avera Ibn Input Bi dIbn Avera Ibi Avera Avera Avera	urrent Noise	> 1MHz, Non-Inverting		30		pA/√Hz
DC Performance V _{IO} Input Of dV _{IO} Averation I _{bn} Input Bi dI _{bn} Averation I _{bi} Input Bi dI _{bi} Averation	k	Channel-to-channel 5MHz		60		dB
dV _{IO} Average I _{bn} Input Bi dI _{bn} Average I _{bi} Average dI _{bi} Average dI _{bi} Average dI _{bi} Average						
dV _{IO} Average I _{bn} Input Bi dI _{bn} Average I _{bi} Average I _{bi} Average dI _{bi} Average dI _{bi} Average	fset Voltage			0		mV
Image: Image shows a state s	age Drift			6		µV/°C
dIbnAverageIbiInput BidIbiAverage	as Current - Non-Inverting			3		μA
I _{bi} Input Bi dI _{bi} Avera	age Drift			40		nA/°C
dI _{bi} Avera	as Current - Inverting			6		μA
	age Drift			10		nA/°C
PSRR Power S	upply Rejection Ratio	DC		55		dB
A _{OL} Open-Lo	oop Transimpendace Gain	$V_{OUT} = V_S / 2$		TBD		kΩ
I _S Supply (Current	per channel		11		mA
Disable Characteristics -	CLC3605 only					
T _{ON} Turn On	Time			55		ns
T _{OFF} Turn Off	Time			55		ns
OFF _{IOS} Off Isola	ition	5MHz		TBD		dB
OFF _{COUT} Off Outp	out Capacitance			TBD		pF
	out Resistance			TBD		kΩ
	own Input Voltage	DIS pin, disabled if pin is pulled above $\mathrm{V}_{\mathrm{OFF}}$			0.5	V
V _{ON} Enable I	and the second	DIS pin, enabled if pin is grounded, left open or pulled below V_{ON}	1.5			V
I _{SD} Disable	nput Voltage	DIS pin is pulled to V_S		0.09		mA

Electrical Characteristics at +5V continued

 T_A = 25°C, V_s = +5V, R_f = R_g =330 Ω , R_L = 150 Ω to $V_S/2,$ G = 2; unless otherwise noted.

Symbol	Parameter	Conditions	Min	Тур	Max	Units
Input Chara	cteristics					
	Terre I Desistence	Non-inverting		150		kΩ
R _{IN}	Input Resistance	Inverting		70		Ω
C _{IN}	Input Capacitance			1.0		pF
CMIR	Common Mode Input Range			1.5 to 3.5		V
CMRR	Common Mode Rejection Ratio	DC		50		dB
Output Char	racteristics					
R _O	Output Resistance	Closed Loop, DC		0.1		Ω
N.	Output Vallage Cuies	$R_L = 150\Omega$		1.5 to 3.5		V
V _{OUT}	Output Voltage Swing	$R_{L} = 1k\Omega$		TBD		V
I _{OUT}	Output Current			±120		mA
I _{SC}	Short-Circuit Output Current	$V_{OUT} = V_S / 2$		TBD		mA

Notes:

1. 100% tested at 25°C

Electrical Characteristics at ±5V

 T_A = 25°C, V_s = ±5V, R_f = R_g =330 Ω , R_L = 150 Ω to GND, G = 2; unless otherwise noted.

Symbol	Parameter	Conditions	Min	Тур	Max	Units
Frequency De	omain Response					
UGBW	Unity Gain Bandwidth	$G = +1$, $V_{OUT} = 0.2V_{pp}$, $R_f = xxx\Omega$		TBD		MHz
BW _{SS}	-3dB Bandwidth	$G = +2, V_{OUT} = 0.2V_{pp}$		1400		MHz
BW _{LS}	Large Signal Bandwidth	$G = +2, V_{OUT} = 1V_{pp}$		650		MHz
BW _{0.1dBSS}	0.1dB Gain Flatness	$G = +2$, $V_{OUT} = 0.2V_{pp}$		120		MHz
BW _{0.1dBLS}	0.1dB Gain Flatness	$G = +2$, $V_{OUT} = 2V_{pp}$		TBD		MHz
Time Domain	Response					
t _R , t _F	Rise and Fall Time	V _{OUT} = 1V step; (10% to 90%)		1.5		ns
t _S	Settling Time to 0.1%	V _{OUT} = 1V step		13		ns
OS	Overshoot	$V_{OUT} = 0.2V$ step		TBD		%
SR	Slew Rate	2V step		2500		V/µs
Distortion/No	ise Response					
HD2	2nd Harmonic Distortion	$V_{OUT} = 1V_{pp'}$ 5MHz		-73		dBc
HD3	3rd Harmonic Distortion	V _{OUT} = 1V _{pp} , 5MHz		-73		dBc
THD	Total Harmonic Distortion	$V_{OUT} = 1V_{pp'}$ 5MHz		69		dB
D _G	Differential Gain	NTSC (3.58MHz), DC-coupled, $R_L = 150\Omega$		0.02		%
D _P	Differential Phase	NTSC (3.58MHz), DC-coupled, $R_L = 150\Omega$		0.02		0
IP3	Third Order Intercept	$V_{OUT} = 0.5 V_{pp}$, 10MHz		34		dBm
SFDR	Spurious Free Dynamic Range	$V_{OUT} = 1V_{pp'}$ 5MHz		673		dBc
e _n	Input Voltage Noise	> 1MHz		5		nV/√Hz
		> 1MHz, Inverting		20		pA/√Hz
i _n	Input Current Noise	> 1MHz, Non-Inverting		30		pA/√Hz
X _{TALK}	Crosstalk	Channel-to-channel 5MHz		60		dB
DC Performa	nce		1		1	.1
V _{IO}	Input Offset Voltage (1)		-10	0	10	mV
dV _{IO}	Average Drift			6		μV/°C
I _{bn}	Input Bias Current - Non-Inverting (1)		-35	3	35	μΑ
dI _{bn}	Average Drift			40		nA/°C
I _{bi}	Input Bias Current - Inverting (1)		-35	6	35	μA
dI _{bi}	Average Drift			10		nA/°C
PSRR	Power Supply Rejection Ratio (1)	DC	40	55		dB
A _{OL}	Open-Loop Transimpendace Gain	$V_{OUT} = V_S / 2$		TBD		kΩ
I _S	Supply Current ⁽¹⁾	per channel		12	18	mA
Disable Chara	acteristics - CLC3605 only		1	1		
T _{ON}	Turn On Time			55		ns
T _{OFF}	Turn Off Time			55		ns
OFFIOS	Off Isolation	5MHz		TBD		dB
OFF _{COUT}	Off Output Capacitance			TBD		pF
OFF _{ROUT}	Off Output Resistance			TBD		kΩ
V _{OFF}	Power Down Input Voltage	DIS pin, disabled if pin is pulled above V_{OFF}			1.0	V
V _{ON}	Enable Input Voltage	DIS pin, enabled if pin is grounded, left open or pulled below V_{ON}	3.0			V
I _{SD}	Disable Supply Current (1)	DIS pin is pulled to V_S		0.1	0.3	mA

Electrical Characteristics at ±5V continued

 T_A = 25°C, V_s = ±5V, R_f = R_g =330 Ω , R_L = 150 Ω to GND, G = 2; unless otherwise noted.

Symbol	Parameter	Conditions	Min	Тур	Max	Units
Input Chara	cteristics			Imilian Type Flax 150 150 70 1.0 ±4.0 40 50		
P	Tran I Desidence	Non-inverting		150		kΩ
R_{IN}	Input Resistance	Inverting		70		Ω
CIN	Input Capacitance			1.0		pF
CMIR	Common Mode Input Range			±4.0		V
CMRR	Common Mode Rejection Ratio (1)	DC	40	50		dB
Output Char	acteristics					
R _O	Output Resistance	Closed Loop, DC		0.1		Ω
		$R_{L} = 150\Omega^{(1)}$		±4.0		V
V _{OUT}	Output Voltage Swing	$R_L = 1k\Omega$		TBD		V
I _{OUT}	Output Current			±120		mA
I _{SC}	Short-Circuit Output Current	$V_{OUT} = V_S / 2$		TBD		mA

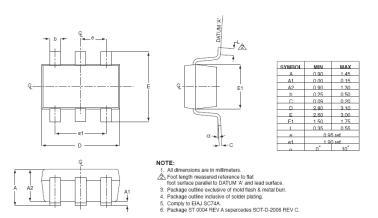
Notes:

1. 100% tested at 25°C

Mechanical Dimensions

SOT23-6 Package

SOT23-6



TSSOP-16 Package

CADEKA Headquarters Loveland, Colorado T: 970.663.5452 T: 877.663.5415 (toll free)

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