

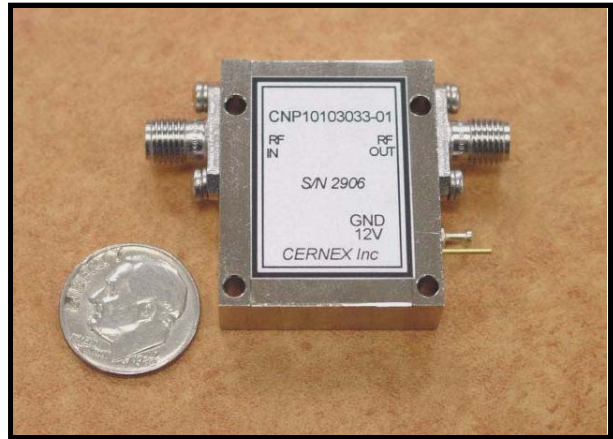
Driver Amplifiers for Clock Recovery and Forward Error Correction

FEATURES:

- ❖ Output Power Levels up to 36 dBm (+40Vpp)
- ❖ Removable SMA Connectors
- ❖ Single Positive Voltage Supply
- ❖ Low Gain Ripple

APPLICATIONS:

- ❖ Drivers for Mach-Zhender Opto-Modulators and Inferometers



DESCRIPTION:

CNP Series

Cernex's CNP series are driver amplifiers for Clock Recovery and Forward Error Correction systems up to 40Gb/s. These driver amplifiers are designed and built with state of the art thin-film GaAs FETs technology that can be optimized to meet all customers' system requirements. Most applications for these driver amplifiers are used in telecom, terrestrial, and optical fiber communications systems. Cernex offers several options such as integrated phase compensation, variable gain control, and built-in detectors/power monitors.

SPECIFICATIONS:

Model Number	Frequency Range (GHz)	Small Signal Gain (dB) Min.	Output Power		Input/ Output Match (dB) Min.	Current @ 12VDC (mA) Typ.
			Vpp Min.	dBm Min		
CNP05063625	5.5 – 6.5	36	+11.24	25	-10/-10	675
CNP05063427	5.5 – 6.5	34	+14.14	27	-10/-10	775
CNP05063230	5.5 – 6.5	32	+20.00	30	-10/-10	925
CNP05063033	5.5 – 6.5	30	+28.28	33	-10/-10	1775
CNP05062835	5.5 – 6.5	28	+35.57	35	-10/-10	2500
CNP09103625	9.5 – 10.5	36	+11.24	25	-10/-10	675
CNP09103427	9.5 – 10.5	34	+14.14	27	-10/-10	775
CNP09103230	9.5 – 10.5	32	+20.00	30	-10/-10	925
CNP09103033	9.5 – 10.5	30	+28.28	33	-10/-10	1775
CNP09102835	9.5 – 10.5	28	+35.57	35	-10/-10	2500
CNP10103625	10.5-10.7	36	+11.24	25	-10/-10	675
CNP10103427	10.5-10.7	34	+14.14	27	-10/-10	775
CNP10103230	10.5-10.7	32	+20.00	30	-10/-10	925
CNP10103033	10.5-10.7	30	+28.28	33	-10/-10	1775
CNP10102835	10.5-10.7	28	+35.57	35	-10/-10	2500
CNP10113625	10.0 – 11.0	36	+11.24	25	-10/-10	675
CNP10113427	10.0 – 11.0	34	+14.14	27	-10/-10	775
CNP10113230	10.0 – 11.0	32	+20.00	30	-10/-10	925
CNP10113033	10.0 – 11.0	30	+28.28	33	-10/-10	1775
CNP10112835	10.0 – 11.0	28	+35.57	35	-10/-10	2500
CNP11123625	11.0 – 12.0	36	+11.24	25	-10/-10	675



Model Number	Frequency Range (GHz)	Small Signal Gain (dB) Min.	Output Power		Input/ Output Match (dB) Min.	Current @ 12 VDC (mA) Typ.
			Vpp Min.	dBm Min		
CNP11123427	11.0 – 12.0	34	+14.14	27	-10/-10	775
CNP11123230	11.0 – 12.0	32	+20.00	30	-10/-10	925
CNP11123033	11.0 – 12.0	30	+28.28	33	-10/-10	1775
CNP11122835	11.0 – 12.0	28	+35.57	35	-10/-10	2500
CNP12133625	12.0 – 13.0	36	+11.24	25	-10/-10	675
CNP12133427	12.0 – 13.0	34	+14.14	27	-10/-10	775
CNP12133230	12.0 – 13.0	32	+20.00	30	-10/-10	925
CNP12133033	12.0 – 13.0	30	+28.28	33	-10/-10	1775
CNP12132835	12.0 – 13.0	28	+35.57	35	-10/-10	2500
CNP20213225	20.5 – 21.5	32	+11.24	25	-10/-10	675
CNP20213027	20.5 – 21.5	30	+14.14	27	-10 /-10	800
CNP20212830	20.5 – 21.5	28	+20.00	30	-10/-10	1500
CNP39403225	39.0 – 40.0	32	+11.24	25	-10 Typ./-10 Typ.	800
CNP39403027	39.0 – 40.0	30	+14.14	27	-10 Typ./-10 Typ.	1500
CNP39402830	39.0 – 40.0	28	+20.00	30	-10 Typ./-10 Typ.	2500
CNP40413220	40.0 – 41.0	32	+6.5	20	-10 Typ./-10 Typ.	700
CNP40413023	40.0 – 41.0	30	+8.0	23	-10 Typ./-10 Typ.	800
CNP40412825	40.0 – 41.0	28	+11.24	25	-10 Typ./-10 Typ.	900
CNP41423220	41.0 – 42.0	32	+6.5	20	-10 Typ./-10 Typ.	700
CNP41423023	41.0 – 42.0	30	+8.0	23	-10 Typ./-10 Typ.	800
CNP41422825	41.0 – 42.0	28	+11.24	25	-10 Typ./-10 Typ.	900
CNP42433220	42.0 – 43.0	32	+6.5	20	-10 Typ./-10 Typ.	700
CNP42433023	42.0 – 43.0	30	+8.0	23	-10 Typ./-10 Typ.	800
CNP42432825	42.0 – 43.0	28	+11.24	25	-10 Typ./-10 Typ.	900
CNP43443020	43.0 -- 44.0	30	+6.5	20	-10 Typ./-10 Typ.	700
CNP43442823	43.0 – 44.0	28	+8.0	23	-10 Typ./-10 Typ.	800
CNP43442625	43.0 – 44.0	26	+11.24	25	-10 Typ./-10 Typ.	900
CNP44453020	44.0 – 45.0	30	+6.5	20	-10 Typ./-10 Typ.	700
CNP44452823	44.0 – 45.0	28	+8.0	23	-10 Typ./-10 Typ.	800
CNP44452625	44.0 – 45.0	26	+11.24	25	-10 Typ./-10 Typ.	900
CNP45463020	45.0 – 46.0	30	+6.5	20	-10 Typ./-10 Typ.	700
CNP45462823	45.0 – 46.0	28	+8.0	23	-10 Typ./-10 Typ.	800
CNP45462625	45.0 – 46.0	26	+11.24	25	-10 Typ./-10 Typ.	900
CNP46472820	46.0 – 47.0	28	+6.5	20	-10 Typ./-10 Typ.	700
CNP46472623	46.0 – 47.0	26	+8.0	23	-10 Typ./-10 Typ.	800
CNP46472425	46.0 – 47.0	24	+11.24	25	-10 Typ./-10 Typ.	900
CNP47482820	47.0 – 48.0	28	+6.5	20	-10 Typ./-10 Typ.	700
CNP47482623	47.0 – 48.0	26	+8.0	23	-10 Typ./-10 Typ.	800
CNP47482425	47.0 – 48.0	24	+11.24	25	-10 Typ./-10 Typ.	900



Model Number	Frequency Range (GHz)	Small Signal Gain (dB) Min.	Output Power		Input/ Output Match (dB) Min.	Current @ 12 VDC (mA) Typ.
			Vpp Min.	dBm Min.		
CNP48492820	48.0 – 49.0	28	+6.5	20	-10 Typ./-10 Typ.	700
CNP48492623	48.0 – 49.0	26	+8.0	23	-10 Typ./-10 Typ.	800
CNP48492425	48.0 – 49.0	24	+11.24	25	-10 Typ./-10 Typ.	900
CNP49502820	49.0 – 50.0	28	+6.5	20	-10 Typ./-10 Typ.	700
CNP49502623	49.0 – 50.0	26	+8.0	23	-10 Typ./-10 Typ.	800
CNP49502425	49.0 – 50.0	24	+11.24	25	-10 Typ./-10 Typ.	900
CNP50512816	50.0 – 51.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP51522816	51.0 – 52.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP52532816	52.0 – 53.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP53542816	53.0 – 54.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP54552816	54.0 – 55.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP55562816	55.0 – 56.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP56572816	56.0 – 57.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP57582816	57.0 – 58.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP58592816	58.0 – 59.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP59602816	59.0 – 60.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP60612816	60.0 – 61.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP61622816	61.0 – 62.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP62632816	62.0 – 63.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP63642816	63.0 – 64.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP64652816	64.0 – 65.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP65662816	65.0 – 66.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP66672816	66.0 – 67.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP67682816	67.0 – 68.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP68692816	68.0 – 69.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP69702816	69.0 – 70.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP70712816	70.0 – 71.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP70712818	70.0 – 71.0	28	+5	18	-10 Typ./-10 Typ.	310
CNP71722816	71.0 – 72.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP71722818	71.0 – 72.0	28	+5	18	-10 Typ./-10 Typ.	310
CNP72732816	72.0 – 73.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP72732818	72.0 – 73.0	28	+5	18	-10 Typ./-10 Typ.	310
CNP73742816	73.0 – 74.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP73742818	73.0 – 74.0	28	+5	18	-10 Typ./-10 Typ.	310
CNP74752816	74.0 – 75.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP74752818	74.0 – 75.0	28	+5	18	-10 Typ./-10 Typ.	310
CNP75762816	75.0 – 76.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP75762818	75.0 – 76.0	28	+5	18	-10 Typ./-10 Typ.	310
CNP76772816	76.0 – 77.0	28	+4	16	-10 Typ./-10 Typ.	310



Model Number	Frequency Range (GHz)	Small Signal Gain (dB) Min.	Output Power		Input/ Output Match (dB) Min.	Current @ 12 VDC (mA) Typ.
			Vpp Min.	dBm Min.		
CNP77782816	77.0 – 78.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP78792816	78.0 – 79.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP79802816	79.0 – 80.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP79802816	79.0 – 80.0	28	+4	16	-10 Typ./-10 Typ.	310
CNP80812816	80.0 – 81.0	28	+4	16	-10 Typ /-3Typ.	310
CNP81822816	81.0 – 82.0	28	+4	16	-10 Typ /-3Typ.	310
CNP82832816	82.0 – 83.0	28	+4	16	-10 Typ /-3Typ.	310
CNP83842816	83.0 – 84.0	28	+4	16	-10 Typ /-3Typ.	310
CNP84852816	84.0 – 85.0	28	+4	16	-10 Typ /-3Typ.	310
CNP85862816	85.0 – 86.0	28	+4	16	-10 Typ /-5Typ.	310
CNP86872816	86.0 – 87.0	28	+4	16	-10 Typ /-6Typ.	310
CNP87882816	87.0 – 88.0	28	+4	16	-10 Typ /-6Typ.	310
CNP88892816	88.0 – 89.0	28	+4	16	-10 Typ /-6Typ.	310
CNP89902816	89.0 – 90.0	28	+4	16	-10 Typ /-6Typ.	310
CNP90912816	90.0 – 91.0	28	+4	16	-10 Typ /-8Typ.	350
CNP91922816	91.0 – 92.0	28	+4	16	-10 Typ /-8Typ.	350
CNP92932816	92.0 – 93.0	28	+4	16	-10 Typ /-8Typ.	350
CNP93942816	93.0 – 94.0	28	+4	16	-10 Typ /-8Typ.	350
CNP94952816	94.0 – 95.0	28	+4	16	-10 Typ /-8Typ.	350
CNP95962816	95.0 – 96.0	28	+4	16	-10 Typ /-8Typ.	350
CNP96972816	96.0 – 97.0	28	+4	16	-10 Typ /-8Typ.	350
CNP97982816	97.0 – 98.0	28	+4	16	-10 Typ /-6Typ.	350
CNP98992816	98.0 – 99.0	28	+4	16	-10 Typ /-6Typ.	350
CNP991002816	99.0 – 100.0	28	+4	16	-10 Typ /-6Typ.	350

ALL SPECIFICATIONS ARE GUARANTEED @ 25°C. AVAILABLE OPTIONS INCLUDE OTHER FREQUENCY BANDS AND HIGER OUTPUT VOLTAGE LEVELS, OFFSET VOLTAGE ADDED TO THE OUTPUT SIGNAL, PHASE SHIFTER AND VARIABLE GAIN CONTROL.

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE.