


CEL SMD Monolithic Microwave ICs

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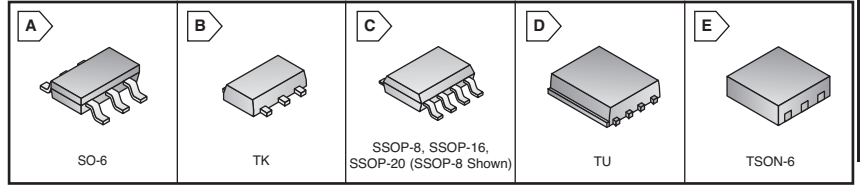
CEL SMD SILICON MONOLITHIC CIRCUITS

CEL offers a broad range of silicon ICs for multimedia, mobile communications and wireless applications. They are based on a high performance bipolar process featuring fTS up to 45GHz. The process permits the productions of transistors with lower parasitics, improved passivation and emitter line widths as small as 0.6 microns. It accommodates low operating voltages while offering high operating frequencies, low noise figures, high efficiency and high reliability. These devices operate from 1 to 5 volts; they include amplifiers, prescalers, frequency converters, IQ modulators and demodulators and multifunction ICs for GPS (Global Positioning System), RKE (Remote Keyless Entry) and W-CDMA markets or for cable modems/setting boxes applications.

Electrical Characteristics (TA=25°C)



RoHS Compliant



Amplifiers ◆ Surface Mount

For quantities 1000 and up, call for quote.

MOUSER STOCK NO.	CEL Part No.	Fig.	Frequency Range @ 3dB Down TYP (MHz)	VCC (V)	ICC (mA)			NF (dB) TYP.	Gain (dB)			RLIN TYP (dB)	RLOUT TYP (dB)	P1B TYP (dBm)	ISOL TYP (dB)	Price Each			
					MIN	TYP	MAX		MIN	TYP	MAX					1	10	100	500
Low Power Amplifiers																			
◆ 551-UPC2748TB-A	UPC2748TB-A	A	1600	3	4.5	6.0	8.0	2.8	16.0	19.0	21.0	11.5	8.5	-8.5	40				
◆ 551-UPC2746TB-A	UPC2746TB-A	A	1600	3	5.0	7.5	10.0	4.0	16.0	19.0	21.0	13.0	8.5	-3.7	45				
◆ 551-UPC2747TB-A	UPC2747TB-A	A	1800	4	3.8	5.0	7.0	3.3	9.0	12.0	14.0	14.0	10.0	-7.0	40				
◆ 551-UPC2745TB-A	UPC2745TB-A	A	2700	3	5.0	7.5	10.0	6.0	9.0	12.0	14.0	11.0	5.5	-3.0	38				
◆ 551-UPC2749TB-A	UPC2749TB-A	A	2900	3	4.0	6.0	8.0	4.0	13.0	16.0	18.5	10.0	12.5	-12.5	30				
◆ 551-UPC8182TB-A	UPC8182TB-A	A	2900	3	22.0	30.0	38.0	4.5	17.5	20.5	23.5	0.0	11.0	9.0	32				
◆ 551-UPC8151TB-A	UPC-8151TB-A	A	100 to 1900	3	2.8	4.2	5.8	6.0	9.5	12.5	14.5	5.0	10.0	2.5	38				
◆ 551-UPC8178TB-A	UPC8178TB-A	A	100 to 2400	3	1.4	1.9	2.4	5.5	9.0	11.5	13.5	8.0	---	-7.0	40				
◆ 551-UPC8178TK-A	UPC8178TK-A	B	100 to 2400	3	1.4	1.9	2.4	5.5	9.0	11.5	13.5	8.0	---	-7.0	40				
◆ 551-UPC8179TB-A	UPC8179TB-A	A	100 to 2400	3	2.9	4.0	5.4	5.0	13.0	15.5	17.5	7.0	---	1.5	42				
◆ 551-UPC8179TK-A	UPC8179TK-A	B	100 to 2400	3	2.9	4.0	5.4	5.0	13.0	15.5	17.5	7.0	---	0.5	42				
Wideband Amplifiers																			
◆ 551-UPC2710TB-A	UPC2710TB-A	A	1000	5	16.0	22.0	29.0	3.5	30.0	33.0	36.5	6.0	12.0	10.8	39				
◆ 551-UPC2711TB-A	UPC2711TB-A	A	1900	5	9.0	12.0	16.0	5.0	11.0	13.0	16.5	25.0	12.0	-2.6	30				
◆ 551-UPC1678GV-A	UPC1678GV-A	C	1900	5	40.0	49.0	60.0	6.0	21.0	23.0	25.0	14.0	4.0	15.9	35				
◆ 551-UPC2771TB-A	UPC2771TB-A	A	2100	3	---	36.0	45.0	6.0	19.0	21.0	24.0	14.0	10.0	11.5	30				
◆ 551-UPC2709TB-A	UPC2709TB-A	A	2300	5	19.0	25.0	32.0	5.0	21.0	23.0	26.5	10.0	16.0	8.7	31				
◆ 551-UPC2712TB-A	UPC2712TB-A	A	2600	5	9.0	12.0	16.0	4.5	18.0	20.0	23.5	12.0	13.0	-0.4	33				
◆ 551-UPC2776TB-A	UPC2776TB-A	A	2700	5	18.0	25.0	33.0	6.0	10.0	23.0	26.0	7.5	20.0	6.0	32				
◆ 551-UPC2762TB-A	UPC2762TB-A	A	2900	3	---	27.0	35.0	6.5	11.5	16.5	17.5	8.5	12.0	7.0	25				
◆ 551-UPC3215TB-A	UPC3215TB-A	A	2900	5	---	14.0	---	2.3	18.5	20.5	---	15.0	9.5	1.5	44				
◆ 551-UPC3223TB-A	UPC3223TB-A	A	3200	5	15.0	19.0	24.0	4.5	20.5	23.0	22.5	12.0	12.0	6.5	33				
◆ 551-UPC3224TB-A	UPC3224TB-A	A	3200	5	7.0	9.0	12.0	4.3	19.0	21.5	24.0	12.0	17.0	-3.5	40				
◆ 551-UPC3225TB-A	UPC3225TB-A	A	2800	5	20.0	24.5	31.0	3.7	30.0	32.5	35.0	8.5	10.5	9.0	41				
◆ 551-UPC3226TB-A	UPC3226TB-A	A	3200	5	12.5	15.5	19.5	5.3	22.0	24.0	26.0	14.0	13.0	7.5	34				
◆ 551-UPC3227TB-A	UPC3227TB-A	A	3200	3	4.0	4.8	6.0	4.7	20.5	22.5	24.5	10.5	13.5	-6.5	40				
◆ 551-UPC2708TB-A	UPC2708TB-A	A	2900	5	20.0	26.0	33.0	6.5	13.0	16.0	18.5	11.0	20.0	7.5	23				
◆ 551-UPC8181TB-A	UPC8181TB-A	A	4000	3	---	23.0	30.0	4.5	18.0	21.0	24.0	10.5	10.0	7.0	32				
SiGe Low Noise Amplifier																			
◆ 551-UPC8215TU-A	UPC8215TU-A	D	1575	3	---	10.0	13.0	1.3	24.0	27.0	30.0	-7.0	-14.0	5.0	40				
◆ 551-UPC8230TU-A	UPC8230TU-A	D	1575	3	---	6.0	---	0.85	---	18.5	---	-11.0	-15.0	-17.0	---				
◆ 551-UPC8231TK-A	UPC8231TK-A	B	1575	3	---	3.5	---	0.80	---	20.0	---	-8.0	-19.0	-22.0	---				
◆ 551-UPC8232TSN-A	UPC8232TSN-A	E	1575	3	---	3.0	---	0.95	---	17.0	---	-10.0	-19.0	-22.0	---				
◆ 551-UPC8211TK-A	UPC8211TK-A	B	3000	3	---	3.5	4.5	1.3	15.5	18.5	21.5	7.5	14.5	-4.0	32.5				

Video Amplifiers

For quantities 1000 and up, call for quote.

MOUSER STOCK NO.	CEL Part No.	Fig.	VCC (V) Typ.	ICC (mA) Typ.	Differential Voltage Gain		Gain 3dB Down from 100KHz		Price Each			
					Gain 1	Gain 2	Gain 1	Gain 2	1	10	100	500
◆ 551-UPC1663GV-A	UPC1663GV-A	C	+/- 6.0	13.0	320	10	120	700				

Frequency Downconverters

For quantities 1000 and up, call for quote.

MOUSER STOCK NO.	CEL Part No.	Fig.	RF Input Freq. Range @ 3dB Down TYP. (MHz)	IF Output Freq. Range @ 3dB Down TYP. (MHz)	VCC (V)	ICC TYP. (mA)	Conversion Gain TYP. (dB)	PSAT TYP. (dBm)	Noise Figure TYP. (dB)	Test Cond. (MHz)		Price Each			
										RF	IF	1	10	100	500
◆ 551-UPC2756TB-A	UPC2756TB-A	A	100 to 2000	10 to 300	3.0	6.0	14	-12	13.0	1000	20				
◆ 551-UPC2757TB-A	UPC2757TB-A	A	100 to 2000	20 to 300	3.0	5.6	13	-8	13.0	2000	250				
◆ 551-UPC2758TB-A	UPC2758TB-A	A	100 to 2000	20 to 300	3.0	11.0	17	-4	13.0	2000	250				
◆ 551-UPC2798GR-A	UPC2798GR-A	C	20 to 250	DC to 150	5.0	23.0	25	----	9.0	----	----				
◆ 551-UPC3220GR-A	UPC3220GR-A	C	30 to 250	0.1 to 150	5.0	20.0	25	----	7.0	----	----				

Frequency Upconverters

For quantities 1000 and up, call for quote.

MOUSER STOCK NO.	CEL Part No.	Fig.	IF Input Freq. Range @ 3dB Down TYP. (MHz)	RF Output Freq. Range Down TYP. (MHz)	VCC TYP. (V)	ICC TYP. (mA)	Conversion Gain TYP. (dB)	PSAT TYP. (dBm)	Noise Figure TYP. (dB)	Price Each			
										1	10	100	500
◆ 551-UPC8163TB-A	UPC8163TB-A	A	50 to 300	800 to 2000	3.0	16.5	9	-2	12.5				
◆ 551-UPC8172TB-A	UPC8172TB-A	A	50 to 400	800 to 2500	3.0	9.0	8.5	0	10.4				
◆ 551-UPC8187TB-A	UPC8187TB-A	A	50 to 400	800 to 2500	3.0	15.0	11	+2.5	12.0				
◆ 551-UPC8106TB-A	UPC8106TB-A	A	50 to 400	400 to 2000	3.0	9.0	10	-2	8.5				

Prescalers

For quantities 1000 and up, call for quote.

MOUSER STOCK NO.	CEL Part No.	Fig.	fIN (GHz)		PIN (dBm)		POUT TYP. (dBm)	VCC (V)	ICC (mA)			Divide Ratio	Price Each			
			MIN	MAX	MIN	MAX			MIN	TYP.	MAX		1	10	100	500
◆ 551-UPB1509GV-A	UPB1509GV-A	C	0.5	1	-20	-5	NA	2.2 to 5.5	---	5.3	---	2/4/8				
◆ 551-UPB1508GV-A	UPB1508GV-A	C	0.5	3	-10	+10	-7	5.0	---	12	---	2				
◆ 551-UPB1507GV-A	UPB1507GV-A	C	0.5	3	-15	+6	NA	5.0	12.5	---	26.5	64/128/256				
◆ 551-UPB1510GV-A	UPB1510GV-A	C	0.5	3	-15	+6	-7	5.0	---	16	---	4				
◆ 551-UPB1512TU-A	UPB1512TU-A	D	5	13	-8	0	-4.5	5.0	---	48	---	8				
◆ 551-UPB1513TU-A	UPB1513TU-A	D	5	13	-8	0	-4.0	5.0	---	48	---	4				