

Prescalers

Part Number	ELECTRICAL CHARACTERISTICS (T _A = 25°C)								Divide Ratio	Package Code	Package Description	Fax on Demand Document Number
	f _{IN} (GHz)		P _{IN} (dBm)		P _{OUT} ¹ (dBm)	V _{CC} (V)	I _{CC} (mA)					
	MIN	MAX	MIN	MAX			TYP	MIN				
UPB584G	0.5	2.5	-10	+5	-7	5.0	12	24	2	G08	8 pin SOP	509
UPB585G	0.5	2.5	-10	+5	-4	5.0	18	34	4	G08	8 pin SOP	510
UPB586G	0.5	2.5	-10	+5	-7	5.0	19	37	256/512	G08	8 pin SOP	511
UPB587G	0.05	1.0	-18	0	-12.5 ²	2.2 to 3.5	—	7.5	2/4/8	G08	8 pin SOP	512
UPB588G	0.5	2.5	-10	+5	-7	5.0	18	34	64/128	G08	8 pin SOP	513
UPB1502GR	0.5	1.7	-15	0	NA ³	3.0	3.2	11	64/65/128/129	G08	8 pin SOP	514
UPB1502GR(1)	0.5	2.0	-15	0	NA ³	3.0	3.2	11	64/65/128/129	G08	8 pin SOP	514
UPB1505GR	0.5	3.0	-10	+10	NA ⁴	5.0	9	19.5	64/128/256	G08	8 pin SOP	515
UPB1506GV	0.5	3.0	-15	+6	NA ⁵	5.0	12.5	26.5	64/128/256	S08	8 pin SSOP	571
UPB1507GV	0.5	3.0	-15	+6	NA ⁵	5.0	12.5	26.5	64/128/256	S08	8 pin SSOP	571
UPB1508GV	0.5	3.0	-10	+10	-7	5.0	12 (TYP)		2	S08	8 pin SSOP	570
UPB1509GV	0.05	1.0	-20	-5	NA ⁶	2.2 to 5.5	5.3 (TYP)		2/4/8	S08	8 pin SSOP	569

Notes:

1. f = 2.0 GHz, P_{IN} = 0 dBm unless otherwise noted.
2. f_{IN} = 0.5 GHz, P_{IN} = -10 dBm, Z_{OUT} = 200 Ω.
3. Output voltage swing with C_L = 8 pF, V_{OUT} = 0.8 Vp-p minimum.
4. Output voltage swing with C_L = 8 pF, V_{OUT} = 1.3 Vp-p minimum.
5. Output voltage swing with C_L = 8 pF, V_{OUT} = 1.2 Vp-p minimum.
6. Output voltage swing with R_L = 200 Ω, V_{OUT} = 0.1 Vp-p minimum.

Quadrature Modulators

Part Number	ELECTRICAL CHARACTERISTICS (T _A = 25°C)							Package Code	Package Description	Fax on Demand Document Number
	I/Q Input Frequency Range @3 dB Down (MHz)	Output Frequency Range @3 dB Down (MHz)	V _{cc} (V)	I _{cc} (mA)	Image Rejection (dBc)	LO Isolation (dBc)	Output Power (dBm)			
	TYP	TYP	TYP	TYP	TYP	TYP	TYP			
	TYP	TYP	TYP	TYP	TYP	TYP	TYP			
UPC8101GR ¹	DC-0.5	50-150	2.5-5.5	15	37 ⁴	35	-11	S20	20 pin SSOP	553
UPC8105GR ²	DC-10	100-400	3.0	16	40	40	-17.5	S16	16 pin SSOP	557
UPC8110GR ³	DC-10	800-1000	3.0	24	40	35	-10	S20	20 pin SSOP	560

Notes:

1. f_{LO} = 300.1 MHz, P_{LO} = -10 dBm, f_{IQ} = 36 kHz at V_{CC}/2 (DC) + 1 Vp-p (AC).
2. V_{IQ} = V_{CC}/2 (DC) + 0.5 Vp-p (AC).
3. f_{LO} = 948 MHz, P_{LO} = -10 dBm, f_{IQ} = 2.625 kHz, V_{IQ} = V_{CC}/2 (DC) + 0.5 Vp-p (AC).
4. Image rejection signal: f_{IMR} = f_{LO}/2 - f_{IQ}.

Quadrature Modulator With Upconverter

Part Number	ELECTRICAL CHARACTERISTICS (T _A = 25°C)								Package Code	Package Description	Fax on Demand Document Number
	I/Q Input Frequency Range @3 dB Down (MHz)	Output Frequency Range @3 dB Down (MHz)	RF Output Frequency Range (MHz)	V _{CC} (V)	I _{CC} (mA)	Image Rejection (dBc)	Upconverter				
							Conversion Gain (dBc)	MAX Output Power (dBm)			
TYP	TYP	TYP			TYP	TYP	TYP				
UPC8104GR	DC-10	100-400	2400	2.7-5.5	25 ¹	40	10 ²	-2 ²	S20	20 pin SSOP	556

Notes:

1. Both upconverter and modulator operate from independent V_{CC}'s. The current draw is 11 and 14 mA, respectively.

R_{FOUT} = 900 MHz.

Quadrature Demodulator

Part Number	ELECTRICAL CHARACTERISTICS (T _A = 25°C)						Package Code	Package Description	Fax on Demand Document Number
	RF Input Frequency Range @ 3 dB Down (MHz)	I/Q Output Frequency Range @ 3 dB Down (MHz)	Conversion Gain (dB)	3rd Order Inter-modulation Distortion (dBc)	I/Q Power Balance (deg)	I/Q Amplitude Balance (dB)			
UPC2766GR	DC-1000	DC-100	20	30	±0.3	±0.3	S20	20 pin SSOP	549