

Video Amplifiers

Part Number	ELECTRICAL CHARACTERISTICS (TA = 25°C)													Package Code	Package Description	Fax on Demand Document Number
	Vcc (V)	AVd ^{1,7}		BW ^{2,7} (MHz)		tr ^{3,7} (ns)		tpd ^{4,7} (ns)		Vo(CM) ⁵ (V)	Vop-P (Vp-p)	Isink ⁶ (mA)	Icc (mA)			
		Gain 1	Gain 2	Gain 1	Gain 2	Gain 1	Gain 2	Gain 1	Gain 2							
		TYP	TYP	TYP	TYP	TYP	TYP	TYP	TYP							
UPC1663GV	±6	320	10	120	700	2.9	2.7	2.0	1.2	2.9	4.0	3.6	13	S08	8 pin SSOP	520

Notes:

1. Differential Voltage Gain.
2. Bandwidth, Rs = 50 Ω (3 dB down from gain @ 100 MHz).
3. Rise time, Rs = 50 Ω, Vout = 1 Vp-p.
4. Propagation Delay, Rs = 50 Ω, Vout = 1 Vp-p.
5. Output Common Mode Voltage.
6. Output Sink Current.
7. Operation conditions applicable to AVd, BW, tr, tpd:
Gain 1 set-up – Gain select pins G1A and G1B are connected.
Gain 2 set-up – All gain select pins are open.

AGC Amplifiers

Part Number	ELECTRICAL CHARACTERISTICS (T _A = 25°C)													Package Code	Package Description	Fax on Demand Document Number
	Typical Frequency Range @ 3 dB Down (MHz)	V _{CC} (V)	I _{CC} (mA)			NF (dB)	Gain (dB)			R _{LIN} (dB)	R _{LOUT} (dB)	P _{1dB} (dBm)	AGC (dB)			
			MIN	TYP	MAX	TYP	MIN	TYP	MAX	TYP	TYP	TYP	TYP			
UPC8119T ^{1,2}	100-1900	3	7.5	11	15	8.5	10	12.5	15	6	-	+3	50	T06	SOT-26	564
UPC8120T ^{1,3}	100-1900	3	7.5	11	15	9.0	10.5	13	16.5	6	-	+3.5	50	T06	SOT-26	564

Notes:

1. f = 900 MHz test condition.
2. Negative gain slope vs. AGC voltage.
3. Positive gain slope vs. AGC voltage.

Multifunction ICs

Part Number	ELECTRICAL CHARACTERISTICS (T _A = 25°C)					Package Code	Package Description	Fax on Demand Document Number
	RF Input Frequency (MHz)	IF Output Frequency (MHz)	V _{cc} (V)	I _{cc} (mA)	Conversion Gain (dB)			
	TYP	TYP			TYP			
UPB1004GS ¹	1575.42	4.092	3.0	37.5	92.5	S30	30 pin SSOP	567
UPC8116GR ²	100–500	0.3–15	3.0	4.1	110	S20	20 pin SSOP	575

Notes:

1. Designed for GPS receivers. Includes RF and IF downconverters and PLL frequency synthesizer.
2. Designed for AM/ASK receivers such as Remote Keyless Entry. Includes downconverter, IF amp, RSSI, and Op amp output.

GaAs SPDT Switches

Part Number	ELECTRICAL CHARACTERISTICS (T _A = 25°C)									Package Code	Package Description	Fax On Demand Doc No.
	Frequency Range (GHz)	Insertion Loss (dB)	Isolation		R _{LI} N	R _{LO} UT (Through)	P ₁ dB (dBm)	Switching Speed (ns)	V _{CON} T Control Voltage (V)			
			@ 1.0 GHz (dB)	@ 2.0 GHz (dB)	MIN (dB)	MIN (dB)						
			TYP									
UPG137GV	0.1 to 2.5	0.6	25	25	11	11	+34	30	+3/0, +5/0	S08	8 pin SSOP	621
UPG138GV	0.1 to 2.5	0.6	30	20	11	11	+34	10	-3/0, -5/0	S08	8 pin SSOP	621
UPG152TA	0.1 to 2.5	0.5	22	20	11	11	+30	30	+3/0, +5/0	T06	SOT-26	622