Digital Up/Down Converters: (VersaCOMM®) Selection Table

DDCs

Generic Part #	MSPS	GSM, EDGE/GPRS	CDMA2000		UMTS	TDS-CDMA
			1x	3x		
[AD6620](#)	65	1 Channel (main and diversity)	1 Channel 2 samples per chip	1 Channel with FPGA to finish filtering 2 samples per chip	1 Channel with FPGA to finish filtering 2 samples per chip	1 Channel
[AD6624](#)	80	4 Channels 2 samples per symbol	2 Channels 2 samples per chip	1 Channel with FPGA for serial to parallel conversion 2 samples per chip	1 Channel with FPGA for serial to parallel conversion 2 samples per chip	4 Channels 1 sample per chip
[AD6624A](#)	100				2 Channels with FPGA for serial to parallel conversion 2 samples per chip	
[AD6634](#)	80	4 Channels 2 samples per symbol	2 Channels 4 samples per chip Digital AGC	2 Channels 4 samples per chip Digital AGC	2 Channels 4 samples per chip Digital AGC	4 Channels 1 sample per chip
[AD6635](#)	80	8 Channels 2 samples per symbol	4 Channels 4 samples per chip Digital AGC	4 Channels 4 samples per chip Digital AGC	4 Channels 4 samples per chip Digital AGC	8 Channels 1 sample per chip
[AD6636](#)	150	6 Channels 4 / 8 samples per symbol	6 Channels 4 samples per chip Digital AGC	6 Channels 4 samples per chip Digital AGC	6 Channels 4 samples per chip Digital AGC	6 Channels 1 / 2 / 4 samples per chip

DUCs

Generic Part #	MSPS	GSM, EDGE/GPRS	CDMA2000		UMTS	TDS-CDMA
			1x	3x		
[AD6622](#)	75	4 Channels Serial output	2 Channels Serial output	1 Channel Serial output	1 Channel Serial output	4 Channels Serial output
[AD6623](#)	104	4 Channels Modulate using I/Q symbols Direct modulation xPSK Mode switching Power Ramping	2 Channels (real output) Serial output Includes IIR filter for phase pre-distortion	2 Channels (real output) Serial output	2 Channels (real output) Serial output	4 Channels Serial output Power Ramping Direct modulation
[AD6633](#)	125	6 Channels Modulated I/Q data VersaCREST™ Crest Reduction Engine IF/RF compensation using complex filter	6 Channels Modulated I/Q data VersaCREST™ Crest Reduction Engine Includes IIR filter for phase pre-distortion	6 Channels Modulated I/Q data VersaCREST™ Crest Reduction Engine IF/RF compensation using complex filter	6 Channels Modulated I/Q data VersaCREST™ Crest Reduction Engine IF/RF compensation using complex filter	6 Channels Modulated I/Q data VersaCREST™ Crest Reduction Engine IF/RF compensation using complex filter

Integrated ADC/DDC Receivers

Generic Part #	MSPS	GSM, EDGE/GPRS	CDMA2000		UMTS	TDS-CDMA
			1x	3x		
AD6652	65	4 Channels 2 samples per symbol	2 Channels with some external filtering 4 samples per chip Digital AGC	2 Channels with some external filtering 4 samples per chip Digital AGC	2 Channels with some external filtering 4 samples per chip Digital AGC	4 Channels 1 sample per chip
AD6653	150	2 x 6 Channels - external Channelization Filters Required Fast Level Detect and Power Monitor	2 x 12 Channels - external Channelization Filters Required Fast Level Detect and Power Monitor	2 x 6 Channels - external Channelization Filters Required Fast Level Detect and Power Monitor	2 x 4 Channels - external Channelization Filters Required Fast Level Detect and Power Monitor	2 x 12 Channels - external Channelization Filters Required Fast Level Detect and Power Monitor
AD6654	92.16	6 Channels 4 / 8 samples per symbol	6 Channels 4 samples per chip Digital AGC	6 Channels 4 samples per chip Digital AGC	6 Channels 4 samples per chip Digital AGC	6 Channels 1 / 2 / 4 samples per chip
AD6655	150	2 x 6 Channels - external Channelization Filters Required Fast Level Detect and Power Monitor	2 x 12 Channels - external Channelization Filters Required Fast Level Detect and Power Monitor	2 x 6 Channels - external Channelization Filters Required Fast Level Detect and Power Monitor	2 x 4 Channels - external Channelization Filters Required Fast Level Detect and Power Monitor	2 x 12 Channels - external Channelization Filters Required Fast Level Detect and Power Monitor
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QDUCs

Generic Part #	Master Clock (MSPS min)	Power Supply Voltage (Vnom)	Power Dissipation (mW max)	Description
AD9856	200	Single (+3)	1590	200 MHz Quadrature Digital Upconverter With 12-Bit Data Path
AD9857	200	Single (3.3 V)	2029	200 MSPS Quadrature Digital Upconverter with 14-bit Data Path
AD9957	1000	Multi (1.8, 3.3)	1800	1 GSPS Quadrature Digital Upconverter with 18-Bit IQ Data Path and 14-Bit DAC
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