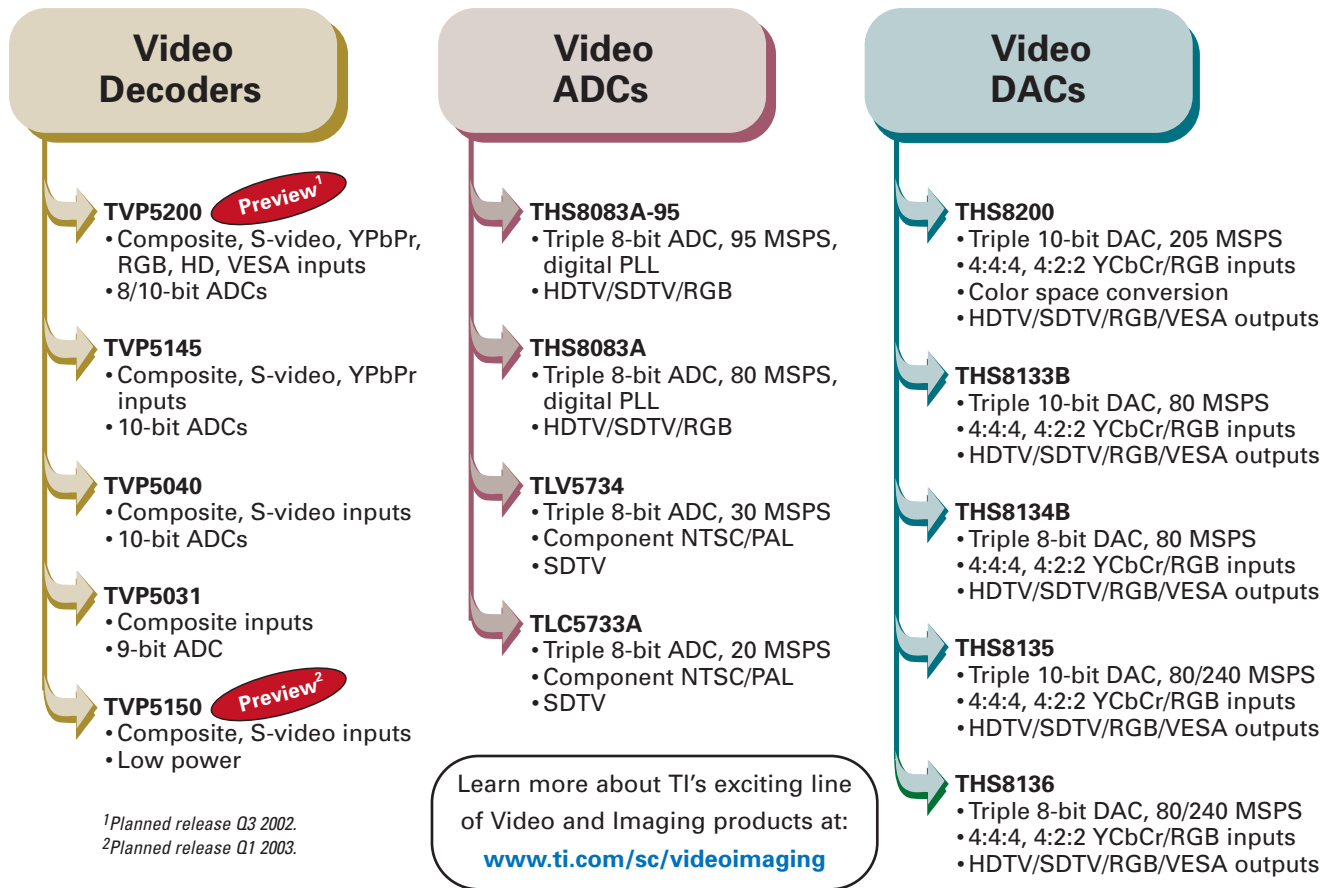


Mixed Signal Video Products Selection Guide



End Equipment														
	TVP5200 ¹	TVP5145	TVP5040	TVP5031	TVP5150 ²	THS8083A	THS8083A-95	TLV5734	TLC5733A	THS8200	THS8135	THS8136	THS8133B	THS8134B
STB	✓	✓	✓	✓		✓	✓			✓	✓	✓	✓	✓
HD-Ready TV	✓					✓	✓			✓	✓	✓	✓	✓
Projector	✓					✓	✓			✓				
Digital TV (DPTV)	✓	✓	✓	✓		✓	✓			✓	✓	✓	✓	✓
PDA					✓									
Rear Projection TV	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓
LCD Monitor	✓	✓	✓	✓	✓	✓	✓							
Portable Video					✓									
DVD Recorder	✓	✓	✓	✓						✓	✓	✓	✓	✓
Professional Video	✓	✓	✓							✓	✓		✓	✓
DVR	✓	✓	✓							✓	✓	✓	✓	✓
Std. Definition TV	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓

¹Planned release Q3 2002.
²Planned release Q1 2003.

Video Decoders

Device	Analog Inputs	ADCs	Input Formats	Input Standards	Y/C Separation
TVP5031	2	1 x 9-bit 30 MHz	Composite	NTSC, NTSC443, PAL-BDGHIMN	Adaptive 3-line complementary comb filter
TVP5040	4	2 x 10-bit 30 MHz	Composite, S-Video	NTSC, NTSC443, PAL-BDGHIMN	Adaptive 3-line complementary comb filter
TVP5145	6	2 x 10-bit 30 MHz	Composite, S-Video, YPbPr	NTSC, NTSC443, PAL-BDGHIMN, SECAM	Adaptive 4-line complementary comb filter
TVP5150 ²	2	1 x 9-bit 30 MHz	Composite, S-Video	NTSC, NTSC443, PAL-BDGHIMN	Adaptive 4-line complementary comb filter
TVP5200 ³	16	1 x 10-bit 80 MHz, 3 x 9-bit 165 MHz	Composite, S-Video, YPbPr, RGB	NTSC, NTSC443, PAL-BDGHIMN, SECAM, VESA (to UXGA), HDTV	Adaptive 4-line complementary comb filter

Video ADCs

Device	Resolution (Bits)	Max Sampling Rate (MSPS)	Integral Non-Linearity (LSB)	Diff. Non-Linearity (LSB)	Analog Voltage Range (V)	Prog. Clamp Timing	Prog. Gain Amp	Prog. ADC Sampling Phase	Line-Locked Digital PLL
TLC5733A	8	20	±1	±0.75	2	No	No	No	No
TLV5734	8	30	±0.75	±0.5	1	No	No	No	No
THS8083A	8	80	±2	-1 to +1.5	1.2	Yes	Yes	Yes	Yes
THS8083A-95	8	95	±2	-1 to +1.5	1.2	Yes	Yes	Yes	Yes

Video DACs

Device	Resolution (Bits)	Number of DACs	Sample Rate (MSPS)	Input Formats	Output Formats	Output Standards
THS8133B	10	3	80	1x8/10-bit 4:2:2 YCbCr/RGB, 2x8/10-bit 4:2:2 YCbCr/RGB, 3x8/10-bit 4:4:4 YCbCr/RGB	Analog RGB, Analog YPbPr	YPbPr SDTV (Interlaced and Progressive), YPbPr HDTV (Interlaced and Progressive), PC VESA (up to XGA@75 Hz), RGB
THS8134B	8	3	80	1x8-bit 4:2:2 YCbCr/RGB, 2x8-bit 4:2:2 YCbCr/RGB, 3x8-bit 4:4:4 YCbCr/RGB	Analog RGB, Analog YPbPr	YPbPr SDTV (Interlaced and Progressive), YPbPr HDTV (Interlaced and Progressive), PC VESA (up to XGA@75 Hz), RGB
THS8135	10	3	80 or 240	1x8/10-bit 4:2:2 YCbCr/RGB, 2x8/10-bit 4:2:2 YCbCr/RGB, 3x8/10-bit 4:4:4 YCbCr/RGB	Analog RGB, Analog YPbPr, Generic DAC	YPbPr SDTV (Interlaced and Progressive), YPbPr HDTV (Interlaced and Progressive), PC VESA (up to 1920x1440@60 Hz), RGB
THS8136	8	3	80 or 240	1x8-bit 4:2:2 YCbCr/RGB, 2x8-bit 4:2:2 YCbCr/RGB, 3x8-bit 4:4:4 YCbCr/RGB	Analog RGB, Analog YPbPr, Generic DAC	YPbPr SDTV (Interlaced and Progressive), YPbPr HDTV (Interlaced and Progressive), PC VESA (up to 1920x1440@60 Hz), RGB
THS8200	10	3	205	1x8/10-bit 4:2:2 YCbCr/RGB, 2x8/10-bit 4:2:2 YCbCr/RGB, 3x8/10-bit 4:4:4 YCbCr/RGB, 15-bit RGB, 16-bit RGB	Analog RGB, Analog YPbPr, Generic DAC, 10-bit digital out	YPbPr SDTV (Interlaced and Progressive), YPbPr HDTV (Interlaced and Progressive), PC VESA (up to UXGA@75 Hz), RGB, ITU-R BT.656

¹Suggested resale price in U.S. dollars in quantities of 1,000.

²Planned release Q1 2003.

³Planned release Q3 2002.

Output Formats	Package	Operating Voltage (V)	Other Features	Price ¹
8/9-bit 4:2:2, 16/18-bit 4:2:2, 8-bit ITU 656	80-pin TQFP with PowerPAD™	3.3	Multiple-format VBI data slicer, factory upgradeable program RAM	7.59
8/10-bit 4:2:2, 16/20-bit 4:2:2, 8/10-bit ITU 656	80-pin TQFP with PowerPAD	3.3	Multiple-format VBI data slicer, factory upgradeable program RAM	6.00
8/10-bit 4:2:2, 16/20-bit 4:2:2, 8/10-bit ITU 656	80-pin TQFP with PowerPAD	3.3	Multiple-format VBI data slicer	9.48
8-bit 4:2:2, 8-bit ITU 656	32/48-pin TQFP	1.8 V, 1.8- or 3.3-V I/O	Low power, programmable scaler	TBD
8/10/16/20-bit 4:2:2, 8/10-bit ITU 656,	144-pin TQFP with PowerPAD	1.8/3.3	Multiple-format VBI data slicer, color space converter, audio clocks	TBD

I ² C Prog.	Output Formats				Operating Voltage (V)	Package	Temp. Range (°C)	Input Format Detect Support	Price ¹
	12-Bit YUV 4:1:1	16-Bit YUV 4:2:2 (ITU-R BT.601)	24-Bit RGB 4:4:4	48-Bit RGB 4:4:4					
No	Yes	Yes	Yes	No	5	64-pin TQFP	-20 to +75	No	4.75
No	Yes	Yes	Yes	No	3.3	64-pin TQFP	-20 to +75	No	4.50
Yes	No	Yes	Yes	Yes	3.3	100-pin TQFP	0 to +70	Yes	7.59
Yes	No	Yes	Yes	Yes	3.3	100-pin TQFP	1 to +70	—	8.10

Color Space Conv.	Embedded Sync Detection	Interpolation Filter	Prog. Sync Amp. & Timing	Internal Scaling	Operating Voltage (Analog/Digital) (V)	Price ¹
No	No	No	No	No	5/3 to 5	7.99
No	No	No	No	No	5/3 to 5	5.99
No	No	No	No	No	3.3/1.8	10.50
No	No	No	No	No	3.3/1.8	8.50
Yes	Yes	Yes	Yes	Yes	3.3/1.8	14.50

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Tuner MOPs

Device	Description	Input Frequency (MHz)	Noise Figure (dB)	Nominal Tuning Voltage (V)	Package	Supply Voltage (V)	Power Consumption (mW)	Price ¹
SN761672A	High-performance tuner MOP	900	9.5	30	32-pin TSSOP	5	400	0.50
SN761676	Tuner MOP with DC/DC converter	900	10.5	-0.4 to 7	38-pin TSSOP	5	1100	0.95

Video PLLs

Device	Description	Frequency Range (MHz)	Jitter (typ) (ps)	Temperature Range (°C)	Package	Supply Voltage (V)	Power Consumption (mW)	Price ¹
TLC2932	Single PLL	11 to 50	100	-20 to 75	14-pin TSSOP	2.85 to 5.25	700	1.05
TLC2933	Single PLL	37 to 100	100	-20 to 75	14-pin TSSOP	2.85 to 5.25	700	1.08
TLC2934	Single PLL	15 to 133	100	-20 to 75	15-pin TSSOP	2.85 to 5.25	700	1.10
TLC2940	VCO	28 to 75	—	-20 to 75	8-pin TSSOP	0.00 to 7.5	700	1.05
TLC2942	Dual PLL	11 to 50	100	-20 to 75	38-pin DB	2.85 to 5.25	1160	2.15
TLC2943	Dual PLL	37 to 100	100	-20 to 75	38-pin DB	2.85 to 5.25	1160	2.20

¹Suggested resale price in U.S. dollars in quantities of 1,000.

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