ICs/LSIs for VCR, Camera

For 8mm VCR

Category	Type No.	Operating Voltage (V)	Process	Functions	Package	No.
Video signal processor	MN6173S	5	CMOS	Chroma signal processing	SO-18D	L34
	AN6366NK/NS	5	Bipolar	Chroma signal processing circuit	22-SDIP/SO-22D	B54 B73
Audio signal processor	MN4416/S	5	CMOS	16Kbit SRAM (Memories)	24-DIP(b)/SOW-24D	M19 M33
	AN6297S	5	Bipolar	Noise reduction circuit for FM/PCM audio	SO-20D	B71
	AN6391NK/NS	5		FM audio record/playback circuit	28-SDIP/SO-28D	B57 B80
	AN3986FBP/FHP	5		FM audio signal processing	84-QFH/80-QFH(b)	B105 B104
Servo control	MN6170AS	5	CMOS	ATF record processing	SO-18D	L34
	MN6181S	5	Bi-CMOS	Servo control	SO-28D	L40
	AN3821K	5	Bipolar	Capstan DD motor drive circuit	24-SDIP(P)	B56

For Video Camera

Category	Type No.	Operating Voltage (V)	Process	Functions	Package	No.
CDS	AN2013SB	5	Bi-CMOS	Correlational double sampling processing circuit	USO-16D	B69
	AN2014S	5		Correlational double sampling processing circuit	SO-10D	B65
	AN2016S	5		Correlational double sampling processing circuit	SO-10D	B65
	AN2011S	V_{CC} = 8.5 ~ 9.5 V_{CC} = 4.6 ~ 5	Bipolar	Correlational double sampling processing circuit	SO-16D	B67
	AN2012S/SB	V_{CC} = 8.5 ~ 9.5 V_{CC} = 4.6 ~ 5		Correlational double sampling processing circuit	SO-16D USO-16D	B67 B69
	AN2017S	5		Correlational double sampling processing circuit	SO-8D	B64
Brightness signal processor	MN6730	4.5 ~ 5.5	CMOS	Signal processing circuit	80-QFH(a)	L54
	AN2030FAP	4.5 ~ 5.1	Bipolar	Camera signal processing circuit for video movie (AGC, gamma)	32-QFH	B87
	AN2050FB	4.5 ~ 5.3		CCD B/W video camera signal processing circuit	44-QFP	B92
	AN2110S	4.8		Signal processing circuit	SO-24D	B74
	AN2145FHP	5		Signal processing circuit for CCD video camera	80-QFH	B104
	AN2146FHP	5		Signal processing circuit for CCD video camera	80-QFH	B104
	AN2147FHP	5		Signal processing circuit for CCD video camera	80-QFH	B104
	AN2150S	5		Signal processing circuit for CCD video camera	SO-28D	B80
	AN2153S	4.6 ~ 5		Brightness, chroma difference signal processing circuit	VSO-42D	B86
	AN2154FAP	4.6 ~ 5		Brightness, chroma difference signal processing circuit	48-QFH(a)	B93
	AN2163FHP	4.5 ~ 5.1		Camera brightness, chroma difference signal processing circuit	80-QFH	B104
	AN2210S	4.8		Video output circuit	SO-24D	B74
	AN2250S	5		Signal processing circuit (For CCD video camera)	SO-28D	B80
	AN2260FAP	4.5 ~ 5.1		S-VHS/VHS brightness signal processing circuit	48-QFH(a)	B93
	AN2263FHP	V_{CC} = 3.3 V_{CC} = 4.5 ~ 5.1		S-VHS/VHS brightness signal processing circuit	80-QFH	B104
	AN3346FAS/FBP	4.5 ~ 5.5		4 head record/playback amp. for VCR cyliner	48-QFH(c) 48-QFH(b)	B95 B94
	AN3348FBP	4.5 ~ 5.1		8 head record/playback amp. for video camera	64-QFH(a)	B100
	AN3351FHP	5		4 head record/playback amp. for video camera	64-QFH(a)	B100
	AN3580SB	4.3 ~ 5.3		Video output circuit with character insert on interface	USO-16D	B69
Chroma signal processor	MN6731	4.5 ~ 5.5	CMOS	Signal processing circuit	80-QFH(a)	L54
	AN2460FAP	4.5 ~ 5.1	Bi-CMOS	S-VHS/VHS Chroma signal processing circuit (with video camera)	64-QFH(b)	B101
	AN2463FHP	V_{CC} = 3.3 V_{CC} = 4.5 ~ 5.1		S-VHS/VHS Chroma signal processing circuit (with video camera) NTSC	64-QFH(a)	B100
	AN2467FHP	V_{CC} = 3.3 V_{CC} = 4.5 ~ 5.1		C-VHS/VHS Chroma signal processing circuit (with video camera) PAL	64-QFH(a)	B100
	AN2253FAP	4.6 ~ 5	Bipolar	Camera encoder circuit	32-QFH	B87
	AN2254FAP	4.6 ~ 5		Camera encoder circuit	48-QFH(a)	B93
	AN2276S	4.5 ~ 5.5		Encoder circuit for CCD video camera	VSO-32D	B84
	AN2350S	5		Signal processing circuit (For CCD video camera)	SO-28D	B80
	AN2355S/FAP	4.5 ~ 5.1		For titler	SO-24D/32QFH	B74 B87
	AN2365S	4.5 ~ 5		For white balance	SO-28D	B80
	AN2410S	6		Signal processing circuit	SO-22D	B73
	AN2441S	4.5 ~ 5.5		SECAM color encoder circuit	SO-28D	B80
	AN2450S	5		Signal processing circuit for CCD video camera	SO-28D	B80
	AN2455SB	4.6 ~ 5		NTSC color encoder circuit	USO-16D	B69
	AN2457SB	4.6 ~ 5		Color encoder circuit	USO-16D	B69

(Package Symbol) QFP = Quad Flat Package, QFH = Quad Flat L-Leaded High Package, SO = Small Outline Package (PANA FLAT PACKAGE),
USO = Ultra Small Outline Package, VSO = Very Short Pitch Small Outline Package,

ICs/LSIs for VCR, Camera

■ For Video Camera (continued)

Category	Type No.	Operating Voltage (V)	Process	Functions	Package	No.
Chroma signal processor (continued)	AN91A10S	4.5 ~ 5	Bipolar	AWB interface circuit	SO-28D	B80
	AN91A13S	4.5 ~ 5.5		AWB interface circuit	SO-28D	B80
CCD drive pulse generator	MN5128	5	CMOS	1/2″ 510H IT-CCD (For NTSC/PAL)	44-QFP	L46
	MN5151-1/51H	5		1/3″ 510H IT-CCD (For NTSC/PAL monitor)	44-QFP/48-QFH	L46 L47
	MN5179/H	5		1/3″ 510H IT-CCD (For NTSC/PAL video camera)	44-QFP/48-QFH	L46 L47
	MN5139	5		1/2″ 670H QFIT-CCD (For NTSC/PAL)	44-QFP	L46
	MN5161	5		1/2″ 670H IT-CCD (For NTSC/PAL)	44-QFP	L46
				1/3″ 670H IT-CCD (For NTSC/PAL monitor)	44-QFP	L46
	MN5181	5		1/3″ 670H IT-CCD (For NSTC/PAL video camera)	44-QFP	L46
	MN5137	5		1/2″ 710H FIT-CCD (For NTSC/PAL)	44-QFP	L46
Sync. signal generator	MN67621F/5177	5	CMOS	420H, 510H, 590H, 670H, CCD (For NTSC/PAL/SECAM)	44-QFP/48-QFH	L46 L47
	MN5150	5		710H CCD (For NTSC/PAL/SECAM)	44-QFP	L46
	MN67603NS	5		External sync., VD output (For NTSC)	SO-22D	L37
	MN5126	5		External sync., VD output (For PAL)	SO-28D	L40
	MN5117	5		PLL for 420H, 510H, 670H, 710H CCD (For NTSC/PAL)	SO-22D	L37
	MN6761S	5		External sync. control	SO-28D	L40
	MN676011NPS	5		External sync., VP output (For NTSC)	SO-28D	L40
	MN676021PPS	5		External sync., VP output (For PAL)	SO-28D	L40
CCD video signal delay line	MN3810K/S	5, 9	CMOS	1H (454 stages, NTSC, 2fsc), clock multiplier circuit built-in	18-SDIP/SO-18D	L18 L34
	MN3811K/S	5, 9		1H (566.5 stages, PAL, 2fsc), clock multiplier circuit built-in	18-SDIP/SO-18D	L18 L34
	MN3817S	5, 8.5		1H (605 stages, NTSC brightness signal, 510H image sensor)	SO-16D	L32
	MN3818S	5, 8.5		1H × 3 (201.5 stages × 3, NTSC chroma difference signal, 510H image sensor)	SO-16D	L32
	MN3819S	5, 8.5		1H (617 stages, PAL brightness signal, 510H image sensor)	SO-16D	L32
	MN3820S	5, 8.5		1H × 3 (205.5 stages × 3, PAL chroma difference signal, 510H image sensor)	SO-16D	L32
	MN3821S	5, 8.5		1H (807 stages, NTSC brightness signal, 670H image sensor)	SO-16D	L32
	MN3822S	5, 8.5		1H × 3 (201.5 stages × 3, NTSC chroma difference signal, 670H image sensor)	SO-16D	L32
	MN3823S	5, 8.5		1H (823 stages, PAL brightness signal, 670H image sensor)	SO-16D	L32
	MN3824S	5, 8.5		1H × 3 (205.5 stages × 3, PAL chroma difference signal, 670H image sensor)	SO-16D	L32
	MN3825S	4.8, 8.5		1H (857 stages, NTSC brightness signal, 710H image sensor)	SO-16D	L32
	MN3826S	4.8, 8.5		1H × 3 (285.5 stages × 3, NTSC chroma difference signal, 710H image sensor)	SO-16D	L32
	MN3827S	4.8, 8.5		1H (863 stages, PAL brightness signal, 710H image sensor)	SO-S6D	L32
	MN3828S	4.8, 8.5		1H × 3 (287.5 stages × 3, PAL chroma difference signal, 710H image sensor)	SO-16D	L32
	MN3860SA	4.8		1H × 3 (201.5 stages × 3, NTSC chroma difference signal, 510H image sensor) 5V single power supply	USO-16D	L33
	MN3861SA	4.8		1H × 3 (205.5 stages × 3, PAL chroma difference signal, 510H image sensor) 5V single power supply	USO-16D	L33
	MN3862SA	4.8		1H × 3 (201.5 stages × 3, NTSC chroma difference signal, 670H image sensor) 5V single power supply	USO-16D	L33
	MN3863SA	4.8		1H × 3 (205.5 stages × 3, PAL chroma difference signal, 670H image sensor) 5V single power supply	USO-16D	L33
	△MN3864SA	4.8		1H × 2 (453 stages × 2, N/P-joint use chroma difference signal, 786H image sensor) 5V single power supply	USO-16D	L33
	MN3804YS/CS	5, 9	NMOS	1H (504.5 stages, NTSC, 420H image sensor)	SO-18D	L39
	MN3805YS/CS	5, 9		1H (514.5 stages, PAL, 420H image sensor)	SO-8D	L29
	MN8029/S	9		1H (226 stages, NTSC, fsc)	8-DIP/SO-8D	L1 L29
	MN8029LS	5		1H (226 stages, NTSC, fsc, 5V single operation)	SO-8D	L29
	MN8037/S	9		1H (282 stages, PAL, fsc)	8-DIP/SO-8D	L1 L29
	MN8037LS	5		1H (282 stages, PAL, fsc, 5V single operation)	SO-8D	L29

△ Preliminary

(Package Symbol) DIP = Dual-In-Line Plastic Package, SDIP = Shrunk Dual-In-Line Plastic Package, QFP = Quad Flat Package, QFH = Quad Flat L-Leaded High Package, SO = Small Outline Package (PANA FLAT PACKAGE), USO = Ultra Small Outline Package, SBB = Stud Bump Bonding

For Video Camera (continued)

Category	Type No.	Operating Voltage (V)	Process	Functions	Package	No.
CCD video signal delay line (continued)	MN8038/S	9	NMOS	1H (280 stages, SECAM, fsc)	8-DIP/SO-8D	L1 L29
	MN8036/S	9		1H (112 stages, NTSC, 0.5fsc)	8-DIP/SO-8D	L1 L29
	MN8033/S	9		1H (140 stages, PAL, 0.5fsc)	8-DIP/SO-8D	L1 L29
EVF	MN83802A	4.5 ~ 5.5	CMOS	LCD view finder display controller	32-QFH	L42
	MN83822B	− 7, 0, 15		LCD view finder vertical direction drive (120 output)	SBB	—
	MN83812B	9 ~ 11		LCD view finder horizontal direction drive (63 output)	SBB	—
	MN83813B	9 ~ 11		LCD view finder horizontal direction drive (93 output)	SBB	—
	AN2510S	4.5 ~ 5.1	Bipolar	Electronic view finder drive circuit	SO-24D	B74
	AN2512S	4.5 ~ 5.3		Electronic view finder drive circuit	SO-14D	B66
	AN2514S	4.5 ~ 5.3		Electronic view finder drive circuit (with synchronization)	SO-16D	B67
	AN2515S	4.5 ~ 5.3		Electronic view finder drive circuit (with synchronization) adjustment-free	SO-16D	B67
Motor driver	AN3815K	4.5 ~ 5.5	Bipolar	VCR cylinder motor drive circuit	18-SDIP(P)	B52
	AN3890FBS	4.5 ~ 5.5		VCR capstan motor drive circuit	36-QFH	B88
	AN3893FHP	5		VCR cylinder motor drive circuit	48-QFH(d)	B96
	AN3894FHP	5		VCR capstan motor drive circuit	48-QFH(d)	B96
	AN6663S/SP	3 ~ 16		VCR camera AF motor drive	SO-8D/SP-5S	B64 B108
	AN6664S	3 ~ 16		Video camera AF motor drive circuit	SONF-16D	B68
Others	MN3104	12	CMOS	Clock driver for CCD delay line	14-DIP(F)	L6
	MN3106/S	5		Clock multiplier for CCD delay line (fsc → 2fsc, 4fsc)	8-DIP/SO-8D	L1 L29
	MN3109/S	5		Clock multiplier for CCD delay line (fsc → 4fsc), Low EMI	8-DIP/SO-8D	L1 L29
	MN3107CS	5, 13, 1, − 7		V driver for CCD solid-state image sensor	SO-20D	L35
	MN3110S/SA	5, 18, 13, 1, − 7		V driver for CCD solid-state image sensor (SUB driver built-in)	SO-20D/SSOP-20D	L35 L36
	MN3111H	5		V driver for CCD solid-state image sensor (5V single power supply)	48-QFH	L47
	AN607P	9	Bipolar	Wide band amp. circuit (Video amp.: phase inversion)	4-SIP	B9
	AN608P	9		Wide band amp. circuit (Video amp.: in-phase)	4-SIP	B9
	AN614	9		Video amp. modulator demodulator	7-SIP	B11
	AN2020S	5		Dual modulator demodulator	SO-18D	B70
	AN3583S	5		Video signal bidirectional switch	SO-16D	B67
	AN3935NFHP	V_{CC} = 4.5 ~ 5.5 V_{CC} = 4.5 ~ 9		FM audio signal processing circuit for VCR video camera	64-QFH(a)	B100
	AN6040	9		Color encoder (For single camera)	9-SIP	B13
	AN6041	9		Dual modulator demodulator	9-SIP	B13

For VHD Video Disc Player

Category	Type No.	Operating Voltage (V)	Process	Functions	Package	No.
—	MN6192	4.5 ~ 5.5	NMOS	Address signal processing circuit	22-DIP	L13
	MN6194	4.5 ~ 5.5		Standard signal generation circuit	22-DIP	L13
	MN6197	4.5 ~ 5.5	CMOS	Address signal processing circuit with standard signal generation	40-SDIP	L21

(Package Symbol) SIP = Single-In-Line Plastic Package, DIP = Dual-In-Line Plastic Package, SDIP = Shrunk Dual-In-Line Plastic Package,
ZIP = Zigzag-In-Line Plastic Package, QFP = Quad Flat Package, QFH = Quad Flat L-Leaded High Package,
SO = Small Outline Package (PANA FLAT PACKAGE),
SONF = Small Outline Non-Fin, SP = Small Power Package, SSOP = Shrunk Small Outline L-Leaded Package, (P) = Power Type, (F) = with Fin