

IC1001 - Microprocessor

Type: Thomson ST10R272L

Sharp Part Number: RH-IX1686BMZZ

Package: SMD gull wing

Price Code: AW

This IC is the same type for all models (FW, GF and HW). To date, it has no alternative.

Pin	Name	I/O	Comment	DC Voltage
1	P5.13	I	Vertical Sync	0V
2	P5.14	I	AFT 1	0V
3	P5.15	I	AFT 2	0V
4	VBS	X	Ground	0V
5	XTAL1	I/O	Crystal	1.4V
6	XTAL2	I/O	Crystal	1.4V
7	VDD	I	Supply	3.3V
8	3.0	X	Not Connected	-
9	3.1	X	Not Connected	-
10	3.2	O	To primary IC	-
11	3.3	O	OPC LED	-
12	3.4	O	AGC Out	Variable
13	3.5	I	Not Connected	-
14	3.6	O	Stereo LED	-
15	3.7	I	OPC Input	Variable
16	3.8	O	AV Link (AV2)	-
17	3.9	I	AGC input	Variable
18	3.10	O	M3 clock	4.3V
19	3.11	I/O	M3 data	4.3V
20	3.12	I/O	Enable	4.3V
21	3.13	I/O	Service data	0V
22	3.15	X	Not Connected	-
23	A16	O	EPROM Address Line	-
24	A17	O	EPROM Address Line	-
25	A18	O	EPROM Address Line	-
26	A19	O	EPROM Address Line	-
27	VSS	X	Ground	0V
28	VDD	I	Supply	3.3V
29	A20	X	Not Connected	-
30	A21	X	Not Connected	-
31	A22	X	Not Connected	-
32	A23	X	Not Connected	-
33	RD	O	Read enable	-
34	WR/WAL	X	Not connected	-
35	READY	X	Not connected	-
36	ALE	O	All Logic Enable	4.3V
37	EA	X	Earth	0V
38	VDD	I	Supply	3.3V
39	VSS	X	Earth	0V
40	RPD	I	Control	-
41	D0	X	EPROM Data Line	-
42	D1	X	EPROM Data Line	-
43	D2	X	EPROM Data Line	-
44	D3	X	EPROM Data Line	-
45	D4	X	EPROM Data Line	-
46	D5	X	EPROM Data Line	-
47	D6	X	EPROM Data Line	-
48	D7	X	EPROM Data Line	-
49	VDD	I	Supply	3.3V
50	VSS	X	Ground	0V
51	SELF1	I	Band switching control	-
52	B6/L	I	Band switching control	-
53	L/L'	I	Band switching control	-
54	RESOUT	O	Reset out	3.3V
55	ROT OUT	O	Rotation output	Variable

56	RES2OUT	O	Reset output 2	3.3V
57	HOUT	O	Horizontal mute control	0V
58	POH 7	I	Control	-
59	A0	O	EPROM Address Line	-
60	A1	O	EPROM Address Line	-
61	A2	O	EPROM Address Line	-
62	A3	O	EPROM Address Line	-
63	A4	O	EPROM Address Line	-
64	A5	O	EPROM Address Line	-
65	A6	O	EPROM Address Line	-
66	A7	O	EPROM Address Line	-
67	A8	O	EPROM Address Line	-
68	VSS	X	Ground	0V
69	VDD	I	Supply	3.3V
70	A9	O	EPROM Address Line	-
71	A10	O	EPROM Address Line	-
72	A11	O	EPROM Address Line	-
73	A12	O	EPROM Address Line	-
74	A13	O	EPROM Address Line	-
75	A14	O	EPROM Address Line	-
76	A15	O	EPROM Address Line	-
77	VSS	X	Ground	0V
78	VDD	I	Supply	3.3V
79	RSTIN	I	Reset input	5.0V
80	RSTOUT	O	Reset output	3.3V
81	NMI	I	Control	3.0V
82	P6.0	I	AV3 Select (RGB)	0V/5V
83	P6.1	I	AV2 Select	0V/5V
84	P6.2	I	AV1 Select	0V/5V
85	P6.3	I	SELV	-
86	P6.4	O	SCL2	4.3V
87	P6.5	X	Not connected	-
88	P6.6	X	Not connected	-
89	P6.7	X	Not connected	-
90	P2.8	X	Not connected	-
91	P2.9	I	From primary processor	-
92	P2.10	O	AL (AV link data)	Variable
93	P2.11	I/O	SDA1	4.2V
94	P7.0	O	SCL1	4.2V
95	P7.1	X	Not connected	-
96	P7.2	I/O	SDA2	4.2V
97	P7.3	O	AFT control	Variable
98	P5.10	X	Not connected	-
99	P5.11	X	Not connected	-
100	P5.12	I	Audio Protection (low active)	5V

Note that because not all the pins are used on the microprocessor, voltages are only shown as necessary on the above table.

IC1801 - Cathode Drive Amplifier (CDA)

Type:	TEA5101A	Sharp Part Number:	RH-IX1416BMZZ
Package:	QIL	Price Code:	AN
Type:	STV5109	Sharp Part Number:	RH-IX1803BMZZ
Package:	QIL	Price Code:	AS
Type:	TDA6019JF	Sharp Part Number:	RH-IX1833BMZZ
Package:	QIL	Price Code:	AR

TDA6109			
Pin	Name	I/O	DC Voltage
1	B input	I	3.18V
2	Reference	I	11.4V
3	G input	I	0V
4	R input	I	3.18V
5	Supply	I	168V
6	R sense	O	0.1V
7	R output	I	140V
8	Ground	X	0V
9	R feedback	I	131V
10	G output	I	133V
11	G sense	O	0V
12	G feedback	I	135V
13	B output	O	130V
14	B sense	O	0.1V
15	B feedback	O	134V

TEA5101			
Pin	Name	I/O	DC Voltage
1	B input	I	3.18V
2	Reference	I	11.4V
3	G input	I	0V
4	R input	I	3.18V
5	Supply	I	168V
6	R sense	O	0.1V
7	R output	I	140V
8	Ground	X	0V
9	R feedback	I	131V
10	G output	I	133V
11	G sense	O	0V
12	G feedback	I	135V
13	B output	O	130V
14	B sense	O	0.1V
15	B feedback	O	134V

STV5109			
Pin	Name	I/O	DC Voltage
1	R sense	I	2.6V
2	G sense	I	2.6V
3	B sense	I	2.6V
4	Ground	X	0V
5	I sense	O	5.6V
6	Supply	I	170V
7	B out	O	85V
8	G out	O	85V
9	R out	O	85V

IC301 / IC302 - Audio Amplifiers**Type:** Thomson TDA7480**Sharp Part Number:** VHITDA7480/-1**Package:** DIL**Price Code:** AK

This IC is the same type for all FW models. To date, it has no alternative.

Pin	Name	I/O	Comment	DC Voltage
1	-Ve	I	Negative supply	-18.0V
2	-Ve	I	Negative supply	-18.0V
3	-Ve	I	Negative supply	-18.0V
4	Output	O	PWM output	0V
5	Boot Diode	I	Boost diode	-7.0V
6	Boot	I	Boost	10.0V
7	NC	X	Not connected	0V
8	Feedback C	I	Feedback	0V
9	Frequency C	I	Freq control	-15.0V
10	Ground	X	Signal ground	0V

11	Input	I	Signal input	0V
12	Mute	I	<2.7V mute	5.1V
13	NC	X	Not connected	0.5V
14	+Ve	I	Positive supply	17.2V
15	V reg	I	Reference	-7.0V
16	+Ve	I	Positive supply	17.2V
17	-Ve	I	Negative supply	-18.0V
18	-Ve	I	Negative supply	-18.0V
19	-Ve	I	Negative supply	-18.0V
20	-Ve	I	Negative supply	-18.0V

IC702 - Primary Control**Type:** Thomson/SGS ST6203B**Sharp Part Number:** RH-IX1646BMZZ**Package:** SMD gull wing**Price Code:** AL

This IC is the same type for all FW models. To date, it has no alternative.

Note that the earth connection of the meter has to be taken at the negative end of the main smoothing block. A more convenient connection is the chopper transistor heatsink.

Pin	Name	I/O	Comment	DC Voltage
1	VDD	I	Supply	5.2V
2	OSCIN	I	Oscillator	2.5V
3	OSCOU	O	Oscillator	2.5V
4	NMI	I	Remote input	5.0V
5	TEST	X	Grounded	0V
6	RESET	I	From reset	5.2V
7	PB7	I	From processor	5.2V
8	PB6	I	100Hz reference	0.48V

9	PB5	I/O	Key scan	5.2V
10	PB3	I/O	Key scan	0V
11	PB1	I/O	Key scan	0V
12	PB0	I/O	Key scan	0V
13	PA3	O	To processor	5.2V
14	PA2	O	Degauss	0V
15	PA1	O	Power control	0V
16	VSS	X	Ground	0V

IC501 - Vertical Output

Type: Thomson TDA7480

Sharp Part Number: VHITDA7480/-1

Package: DIL

Price Code: AK

This IC is the same type for all FW models. To date, it has no alternative.

Pin	Name	I/O	Comment	DC Voltage
1	-Ve	I	Negative supply	-13.1V
2	-Ve	I	Negative supply	-13.1V
3	-Ve	I	Negative supply	-13.1V
4	Output	O	PWM output	0V
5	Boot Diode	I	Boost diode	-2.1V
6	Boot	I	Boost	9.9V
7	NC	X	Not connected	0V
8	Feedback C	I	Feedback	0V
9	Frequency C	I	Freq control	-11.8V
10	Ground	X	Signal ground	0V

11	Input	I	Signal input	0V
12	Mute	I	<2.7V mute	5.0V
13	NC	X	Not connected	0V
14	+Ve	I	Positive supply	14.1V
15	V reg	I	Reference	0V
16	+Ve	I	Positive supply	14.1V
17	-Ve	I	Negative supply	-13.1V
18	-Ve	I	Negative supply	-13.1V
19	-Ve	I	Negative supply	-13.1V
20	-Ve	I	Negative supply	-13.1V

IC1003 - NVM

Type: Xicor X25645S8

Sharp Part Number: RH-IX1603BMZZ

Package: SMD

Price Code: AV

In the Dolby Pro Logic version of this chassis (models ending in 4) and the76GF63H, there is another NVM fitted. This is IC1004 and it is used as a teletext page store. It is not necessary to change this IC if you suspect a data corruption causing an operational problem on the set.

Pin	Name	I/O	Comment	DC Voltage
1	NC	X	Earth	0V
2	S1	X	Earth	0V
3	S2	X	Earth	0V
4	VSS	X	Earth	0V
5	SDA	I/O	Date	4.2V
6	SCL	I	Clock	4.2V
7	WP	I	Write protect	5.0V
8	VCC	I	Supply	5.0V

IC2401 - Megatext****FW53H**Type: *Siemens SDA5273-2*Sharp Part Number: *RH-IX1673BMZZ*Package: *DIL*Price Code: *BE*****FW54H (Pro-Logic Models)**Type: *Siemens SDA5275-3*Sharp Part Number: *RH-IX1709BMZZ*Package: *DIL*Price Code: *BG*

Note that a different type of IC is used for the Dolby Pro-Logic version of this chassis. It also has a page store (IC2402) associated with the Mega Text IC when used in the Pro-Logic set.

Pin	Name	I/O	Comment	DC Voltage
1	CLK	X	Not connected	1.1V
2	TSCQ	X	Not connected	2.0 to 2.3V
3	VS	I	Vertical pulse	0V
4	HS	I	Horizontal pulse	0.1V
5	XOUT	O	Crystal	1.5V
6	XIN	I	Crystal	2.0V
7	GPO	X	Not connected	0V
8	TM	X	Grounded	0V
9	CVBS	I	Composite video	5.0V
10	VDD 1	I	Supply	5.0V
11	VDDA	I	Supply	5.0V
12	VSSA 1	X	Ground	0V
13	VDD 2	I	Supply	5.0V
14	RES	I	Reset In	2.9V
15	VDD 3	I	Supply	5.0V
16	AVREF	I	Reference voltage	2.9V
17	VDD 4	I	Supply	5.0V
18	A8	O	Used with IC2402	0.1V
19	A7	O	Used with IC2402	0.1V
20	A6	O	Used with IC2402	0.1V
21	A5	O	Used with IC2402	0.2V
22	A4	O	Used with IC2402	0.2V
23	A3	O	Used with IC2402	0.2V
24	A2	O	Used with IC2402	0.1V
25	A1	O	Used with IC2402	0V
26	A0	O	Used with IC2402	1.5V
27	A9	O	Used with IC2402	0V
28	A10	X	Not connected	3.5V
29	A11	X	Not connected	3.9V
30	RASQ	O	Used with IC2402	1.2V
31	WEQ	O	Used with IC2402	0V
32	D1	I/O	Used with IC2402	4.6V
33	D2	I/O	Used with IC2402	4.2V
34	D3	I/O	Used with IC2402	4.6V
35	D4	I/O	Used with IC2402	4.2V
36	VSS 4	X	Grounded	0V
37	CASQ	X	Not connected	4.6V

38	VSS 3	X	Grounded	0V
39	VBB	I	Reference	-1.9V
40	VSS 2	X	Grounded	0V
41	VSSA 2	X	Grounded	0V
42	RGB GND	X	Grounded	0V
43	VSS 1	X	Grounded	0V
44	R	O	Red output	0V
45	G	O	Green output	0V
46	B	O	Blue output	0V
47	BLAN	O	Blanking output	0.5V
48	CORQ	X	Not used	4.98V
49	M3CLK	I	Clock	4.98V
50	M3LDA	I/O	Data	0V
51	I2CEN	I	Data enable	0V
52	INTQ	X	Not connected	0V

IC201 - IFType: *Temic TDA4472 MFL*Sharp Part Number: *RH-IX1672BMZZ*Package: *DIL*Price Code: *AP*

This IC is the same type for all models. To date, it has no alternative.

Pin	Name	I/O	Comment	DC Voltage
1	SIF	I	Sound IF	3.2V
2	SIF	I	Sound IF	3.14V
3	IS	X	Not connected	3.4V
4	GND	X	Earth	0V
5	SAGC	I	Sound AGC	1.8V
6	VIF	I	Video IF	2.24V
7	VIF	I	Video IF	2.2V
8	VAGC	I	Video AGC	2.4V
9	GND	X	Earth	0V
10	AGC	I	Overall AGC	0.8V
11	RF AGC	I	RF AGC	3.4V
12	VOUT	O	Video output	2.1V
13	ST	X	Not connected	0V
14	L/L	X	Not connected	0V
15	BL	X	Not connected	0V

16	GND	X	Earth	0V
17	C	I	PLL control	4.25V
18	PLL	I	PLL control	2.2V
19	AFC	X	Not connected	3.47V
20	VCO	I	VCO control	3.1V
21	VCO	I	VCO control	3.3V
22	AFC	I	AFT control	2.1V
23	+V	I	Supply	5.1V
24	FM	O	To AFT control	2.1V
25	AM	X	Not connected	0V
26	OFS	X	Not connected	3.5V
27	SOF2	X	Not connected	0V
28	SIF2	X	Not connected	0V