

Typical problem: You need to replace an integrated circuit, or at least find some data on it. It says

DM8095N
7410 NS

and lives in a 16-pin DIP. What is it? The 7410 has a familiar sound, so you order a few. A week later they arrive, in 14-pin DIPs! Banging your head on the nearest wall (since you should have known this all along), you realize you're back where you were a week ago, but with a handful of spare 3-input NANDs for consolation.

What's needed is a master list of IC prefixes, from which you can quickly identify the manufacturer. This appendix is our attempt to bring some order out of chaos. We make no pretense of accuracy or completeness, especially since the list is proliferating daily. (That mystery chip is a National Semiconductor 8095 hex three-state TTL buffer, by the way, manufactured in the 10th week of 1974.)

PREFIXES

The various semiconductor manufacturers use distinctive (usually) prefixes in front of the IC number, even if it is an IC type made by many different companies. The DM in the preceding example indicates a digital monolithic IC made by National Semiconductor (also indicated by the NS logo). Here is a list of most of the prefixes now in use:

Prefixes	Manufacturer
ACE, AY, GIC, GP, SPR	General Instrument (GI)
AD, CAV, HAS, HDM	Analog Devices
ADC, DM, DS, LF LFT, LH, LM, NH	National Semiconductor (NSC)
AH	Optical Electronics Inc.
Am	Advanced Micro Devices (AMD)
AM	Datel
AN	Panasonic
Bt	Brooktree
BX, CX	Sony
C, I, i	Intel
CA, CD, CDP	GE/RCA
CA, TDC, MPY, THC, TMC	TRW
CM, HV	Supertex
CLC	Comlinear
CMP, DAC, MAT, OP, PM, REF, SSS	Precision Monolithics
CY	Cypress
D, DF, DG, SI	Siliconix
DS	Dallas Semiconductor
EF, ET, MK, SFC, TDF, TS,	Thomson/Mostek
EP, EPM, PL	Altera
F, μ A, μ L, Unx	Fairchild/NSC
FSS, ZLD	Ferranti
GA	Gazelle
GAL	Lattice
GEL	GE
HA, HI	Harris

Ref: The Art of Electronics

HA, HD, HG, HL, HM, HN	Hitachi	RD, RF, RM, RT, RU	EG&G Reticon
HADC, HDAC	Honeywell	S	AMI
HEP, MC, MCC, MCM, MEC, MM, MWM	Motorola	SFC	ESMF
ICH, ICL, ICM, IM	GE/Intersil	SG	Silicon General
IDT	Integrated Device Technology Siemens	SN, TL, TLC, TMS	Texas Instruments (TI)
IMS	Inmos	SS	Silicon Systems
INA, ISO, OPA, PWR	Burr-Brown	T, TA, TC, TD TMM, TMP	Toshiba
IR	Sharp	OM, PCD, PCF, SAA, SAB, SAF, SCB, SCN, TAA, TBA, TCA, TDA, TEA, U	AEG, Amperex, SGS, Siemens, Signetics, Telefunken
ITT, MIC	ITT	TML	Telmos
KA	Samsung	TP	Teledyne Philbrick
L	SGS	TPQ, UCN, UCS, UDN, UDS, UHP, ULN, ULS	Sprague
L, LD	Siliconix, Siltronic	TSC	Teledyne Semiconductor
L, UC	Unitrode	μ PB, μ PC, μ PD	NEC
LA, LC	Sanyo	V	Amtel
LS	LSI Computer Systems	VA, VC	VTC
LT, LTC, LTZ	Linear Technology Corp.	VT	VLSI Technology Inc. (VTI)
M	Mitsubishi	X	Xicor
MA	Analog Systems, Marconi	XC	Xilinx
MAX	Maxim	XR	Exar
MB	Fujitsu	Z	Zilog
MCS	MOS Technology	ZN	Ferranti
MIL	Microsystems International	5082-nnnn	Hewlett-Packard (HP)
ML, MN, SL, SP, TAB	Plessey		
ML, MT	Mitel		
MM	Teledyne-Amelco, Monolithic Memories		
MN	Micro Networks		
MP	Micro Power Systems		
MSM	Oki		
N, NE, PLS, S, SE, SP	Signetics		
nnG	Gigabit Logic		
NC	Nitron		
PA	Apex		
PAL	AMD/MMI		
R	Rockwell		
R, Ray, RC, RM	Raytheon		

Suffixes

Suffix letters indicate package type and temperature range. There are three standard temperature ranges: "Military" (-55°C to $+125^{\circ}\text{C}$), "Industrial" (-25°C to $+85^{\circ}\text{C}$), and "Commercial" (0°C to $+70^{\circ}\text{C}$). Commercial is adequate for anything intended for use in normal indoor environments. As luck would have it, each manufacturer has its own set of suffixes, subject to frequent modification. Be sure to look up the correct suffix before you order, or ask the distributor for assistance.

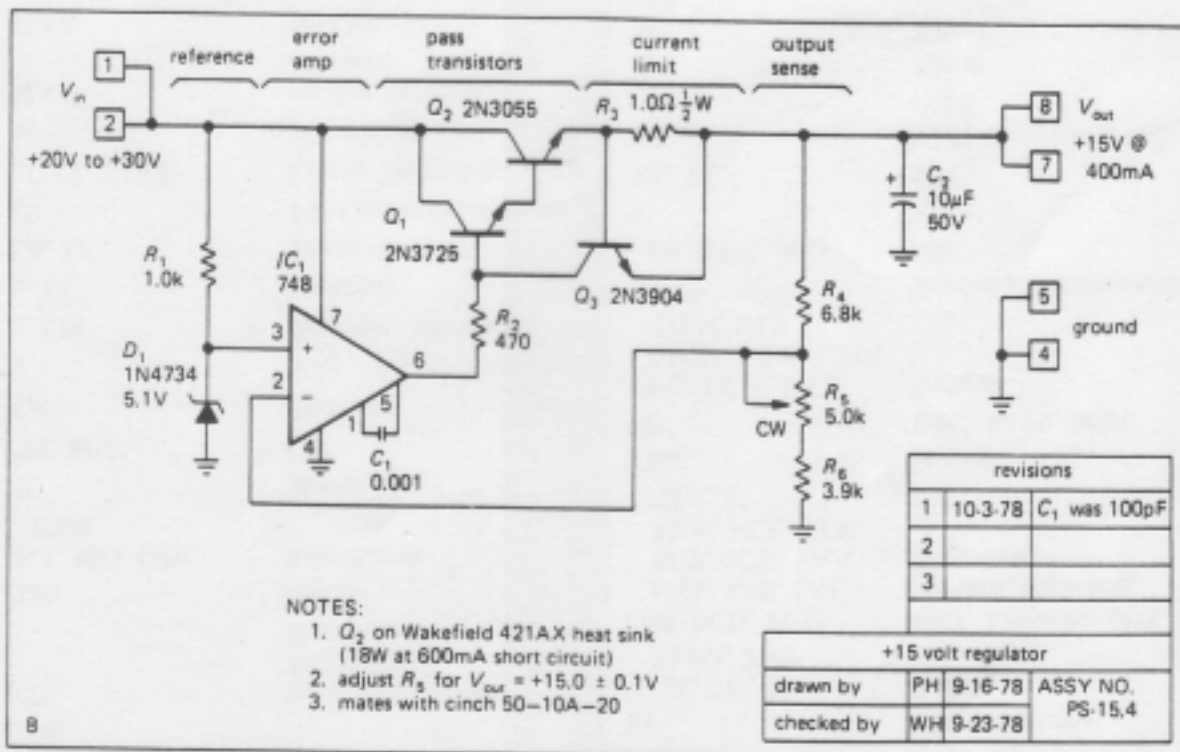
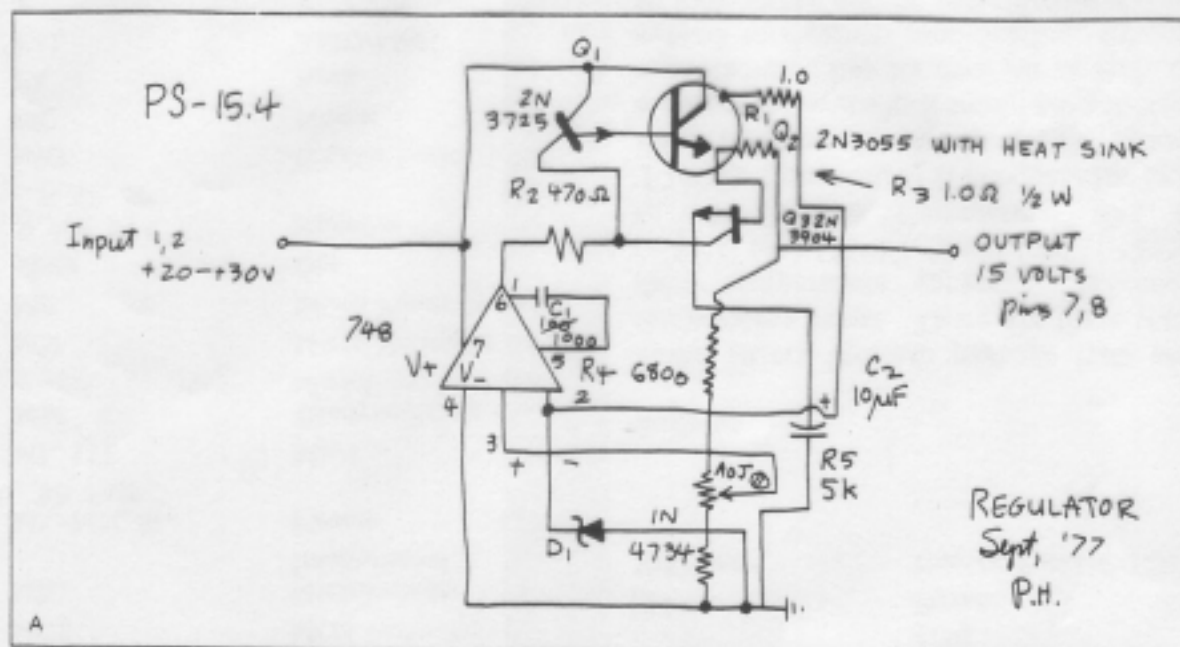
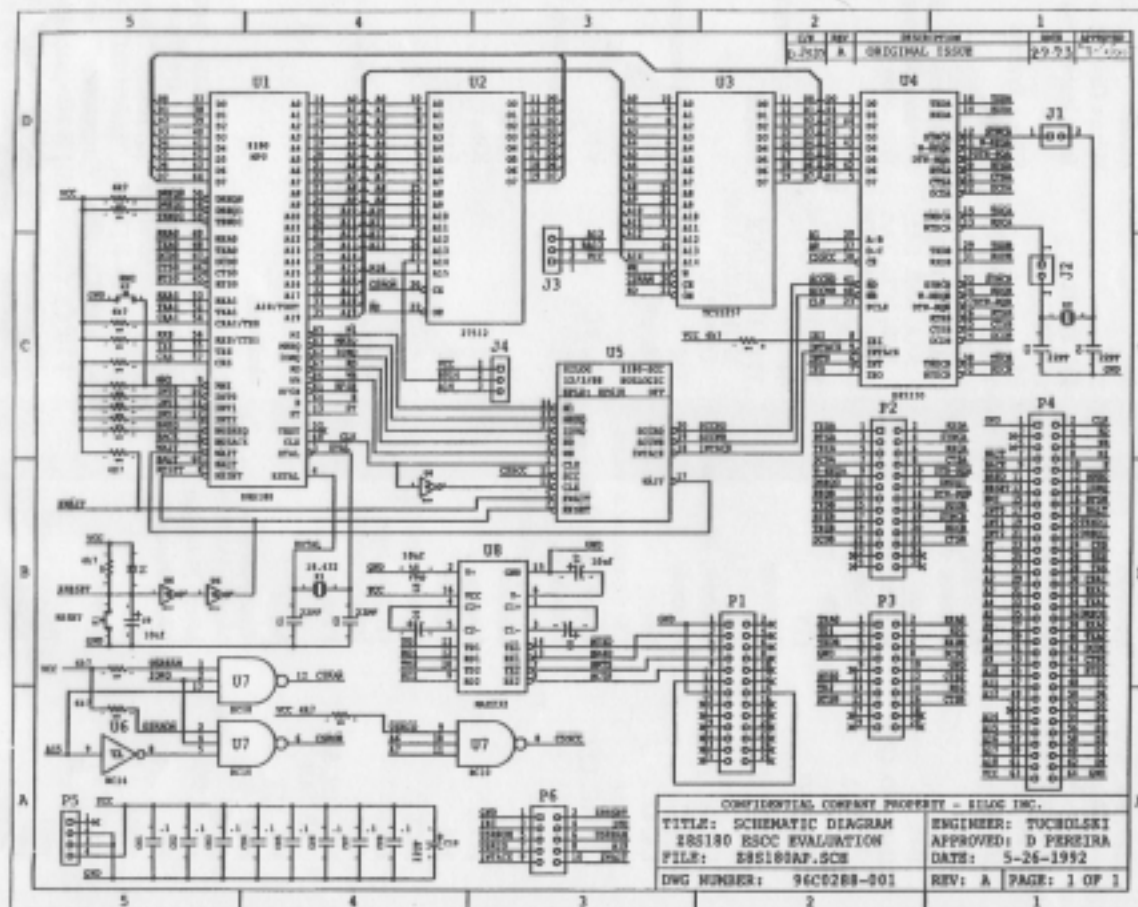


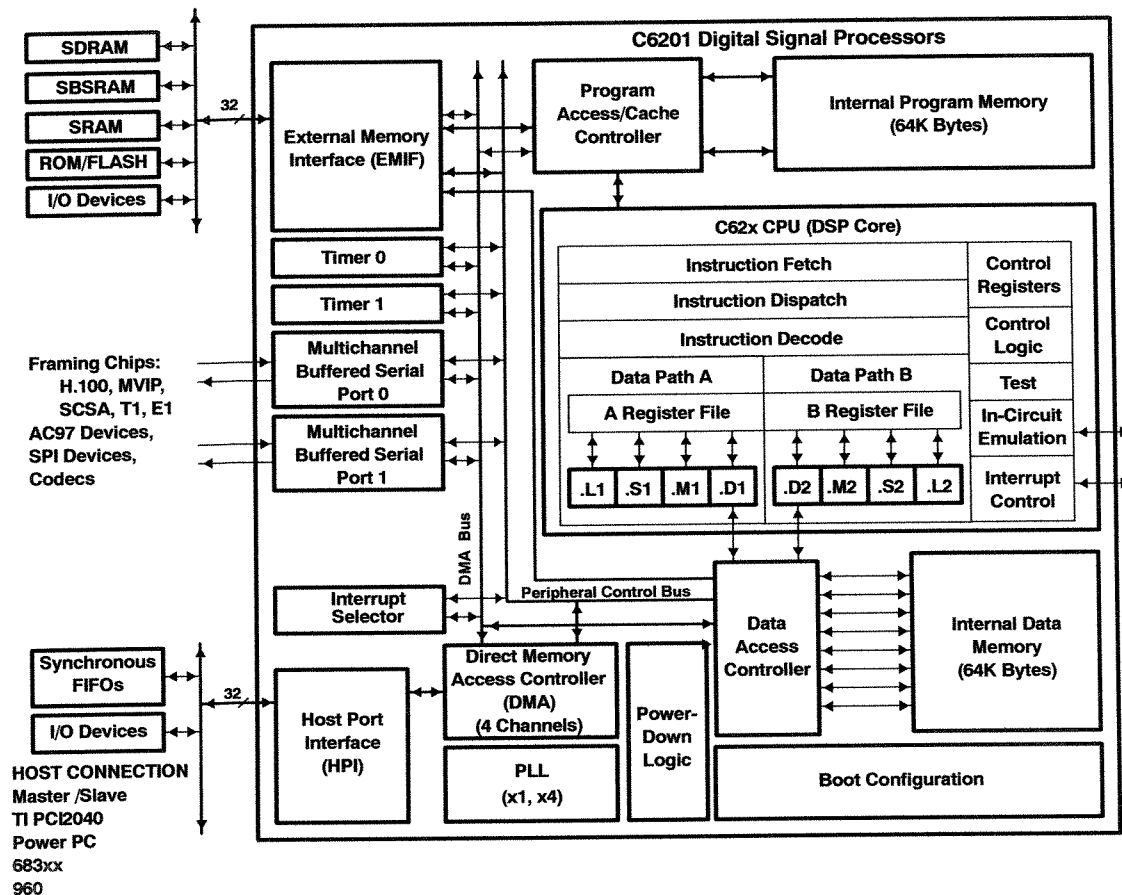
Figure E3



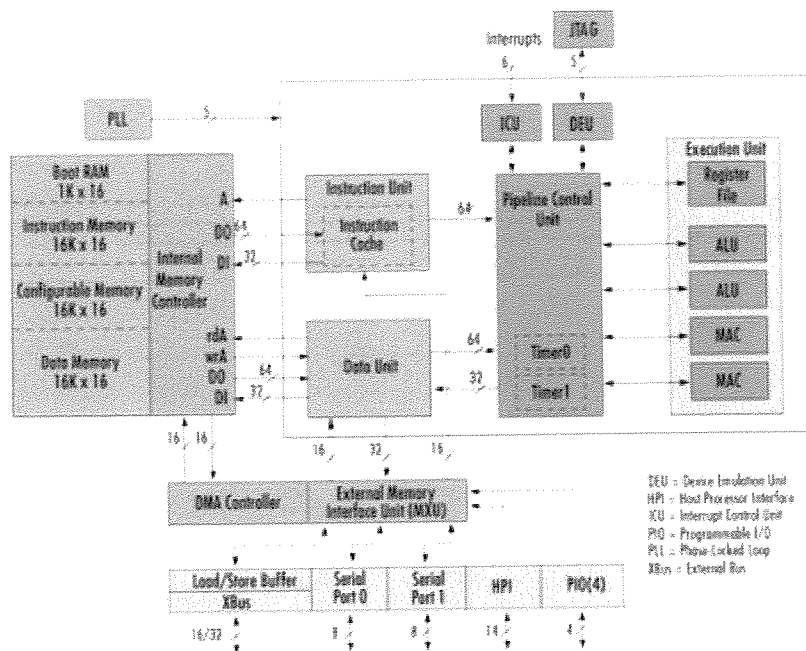
TMS320C6201 FIXED-POINT DIGITAL SIGNAL PROCESSOR

SPRS051H - JANUARY 1997 - REVISED MARCH 2004

functional and CPU (DSP core) block diagram



POST OFFICE BOX 1443 • HOUSTON, TEXAS 77251-1443



Enlarge

TOP

Support

- Support

Global support page with links to product-related tech support resources and contacts.

TOP

Product Literature

- LSI403WLP Digital Signal Processor Product Brief [PDF, 221KB, May 2005]

TOP

Related Technologies

- Enhanced Versatile Disc (EVD)

TOP

E-mail this page | Printer Friendly Format

Home | Product Solutions | Market Solutions | Technology | Support
Downloads | Documentation | Where to Buy | Partner Resources
Contacts | About LSI | Worldwide

© 2005 LSI Logic Corporation. All Rights Reserved.
Trademark, privacy and site feedback