

Model 3000-39 Universal I/O Card 90400300



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Regulatory compliance information

This product complies with the essential requirements of the following applicable European Directives, and carries the CE mark accordingly.

89/336/EEC and 73/23/EEC

EN61010-1 (1993)

EN61326-1 (1997)

Manufacturer's Name:

Giga-tronics, Incorporated

EMC Directive and Low Voltage Directive

Electrical Safety

EMC – Emissions and Immunity

Manufacturer's Address

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Type of Equipment:

Switching Module

Model Series Number

3000-39

Declaration of Conformity on file. Contact Giga-tronics at the following;

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Record of Changes to This Manual

Use the table below to maintain a permanent record of changes to this document. Corrected replacement pages are issued as Technical Publication Change Instructions (TPCI). When you are issued a TPCI, do the following:

1. Insert the TPCI at the front of the manual binder.
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3. Replace the page(s) removed in the previous step with the corrected page(s).
4. Record the changes in the table below.

TPCI Number	TPCI Issue Date	Date Entered	Comments

Revision History			
Revision	Description of Change	Chg Order #	Approved By
A	Initial Release		
B	Updated		
C	Reformatted 3/12		RCW

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Chapter 1 Introduction

1.1 Safety and Manual Conventions

This manual contains conventions regarding safety and equipment usage as described below.

1.1.1 Product Reference

Throughout this manual, the term “Common Core Switching Platform, Series 8800” refers to all models of within the series, unless otherwise specified.

1.1.2 Personal Safety Alert



WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

1.1.3 Equipment Safety Alert



CAUTION: Indicates a situation which can damage or adversely affect the product or associated equipment.

1.1.4 Notes

Notes are denoted and used as follows:

NOTE: Highlights or amplifies an essential operating or maintenance procedure, practice, condition or statement.

1.1.5 Electrical Safety Precautions

Any servicing instructions are for use by service-trained personnel only. To avoid personal injury, do not perform any service unless you are qualified to do so.

For continued protections against fire hazard, replace the AC line fuse only with a fuse of the same current rating and type. Do not use repaired fuses or short circuited fuse holders.

Chapter 2 Configuration Table

Module – 3000-39

PL90400300-002

Assy 90400300-002

Module – 3000-39A

PL90400300-003

Assy 90400300-003

Module – 3000-39B

PL90400300-004

Assy 90400300-004

Schematics

PL85004090

Assy 85004090

SCH85004090

PL85005000

Assy 85005000

SCH85005000

Chapter 3 Functional Description

3.1 Introduction

This manual provides the necessary information for the maintenance of the Model 3000-39 Universal I/O.

NOTE: The Model 3000-39 is supplied under three configurations:

Part no. 90400300-002 (Motherboard SCH85004090, One Daughterboard P/N. SCH85005000).

Part no. 90400300-003 (Motherboard SCH85004090, Two Daughterboards P/N. SCH85005000).

Part no. 90400300-004 (Motherboard SCH85004090, Three Daughterboards P/N SCH85005000).

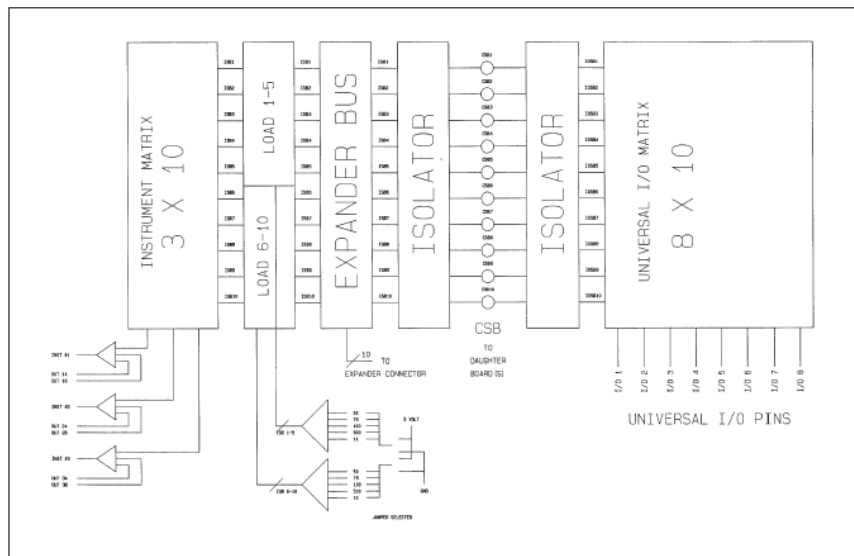
3.2 General Description

This module is a versatile multi-matrix switch. It is design to support universal signal switch requirements. It is ideal as the core or intermediate level switch module for a large scale switching system for both low and high frequency signals. It contains three switch sections:

- 1) six each ultra high frequency four pole 50 Ω star switches,
- 2) dual 3x10 high frequency matrices.
- 3) dual low frequency 8x10 matrices.

Each circuit card (mother board and daughter board) contains 3 each, four pole star switches, a 3x10 matrix, a 8x10 matrix, two isolation circuits and two sets of load resistors. Isolation circuits are provided to maintain signal performance by disconnecting unused sections of the matrices. The high and low frequency matrices are linked together through the isolation relays to the common signal bus (CSB). The CSB forms 10 channels of buses to link either the low frequency matrix or the high frequency matrix. Connections between the mother board and the daughter board are made through CSB. Each relay in the module is individually controlled. Any and all relays can be closed. The module is designed to support precision testing designs such as ATE. This module is ideal for high quality multi-channel measurement or stimulus switching. Each relay is coaxially shielded to a separate analog ground plane. The Interface and mechanical construction meets the specification of the VXIbus System Specification, rev 1.2 through 1.4.

Chapter 4 Block Diagram

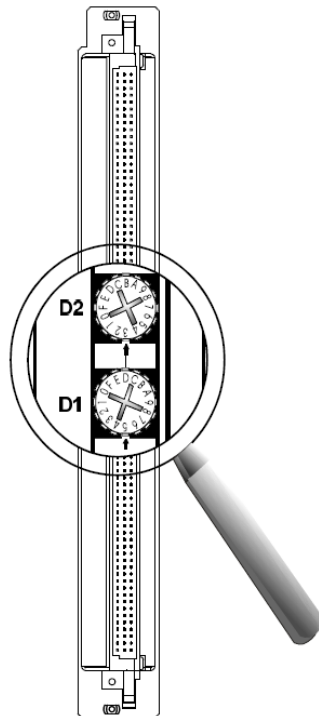


Controls and Indicators

The following controls and indicators are provided to select and display the functions of the ASCOR 3000-39 Module's operating environment.

4.1 VXi Logical Address

The Logical Address Switch is dual circular switches, D1 and D2 which are located at the rear of the module. The address can be set to any value between 1 and 255 (decimal) or 1 and FF (hexadecimal), (address 0 is reserved for the resource manager). However, the Module fully supports Dynamic Configuration as defined in **Section F of the VXi specification**, address 255 (FF) should be selected only if the Resource Manager also supports Dynamic Configuration.



4.2 LEDs

The following LEDs are visible at the Module's front panel to indicate the status of the module's operation:

4.2.1 "BUS" LED

This green color LED is normally off and will flash on when the module is addressed by the system.

4.2.2 "PWR" LED

This red color LED is normally on when the Module is Powered up.

Chapter 5 Internal Settings

The following items are inside the module and can be reached by removing the side cover.

5.1 Fuse

The ASCOR VXI 3000-39 uses a 10 Amp fuse in the +5 Volt line and is located on the Mother Board (MB) assembly.

5.2 VXI_{bus} Interrupt Level Selection

The VXIbus interrupt level is set with three bits in the “3Eh” register.

See the section on “A16 ADDRESS SPACE REGISTER DESCRIPTION”.

The interrupt level is factory set to “no interrupt”.

Chapter 6 Specifications

Model 3000-39 Universal I/O

Features (P/N. 90400300-002)

Six 4 pole star switch with >>700MHz bandwidth

Dual 3x10 matrices with >>50MHz bandwidth

Dual 8x10 matrices with >>50MHz bandwidth

Isolation circuits to separate the matrices

Programmable load resistors to terminate the channels

Expandable through additional daughter boards or J2.

Electrical:

DC parameters:

Switching voltage:	200 Volts
Switching current:	0.5 Amps
Carry current:	1.5 Amps
Contact rating:	10 Watts
Load resistors:	1/4 Watt (changeable)

AC Parameters:

Bandwidth into 50 Ω	
4 pole star switches	>>700MHz
3x10 matrix	>>50MHz
8x10 matrix	>>50MHz

Mechanical:

Thickness:	1.200 inches
Width:	10.317 inches
Length:	13.78 inches
Weight:	3 lbs.

Environmental Specifications

Temperature:

Operating:	0° to 55°C
Storage:	- 40° to 75°C

Relative Humidity:

Operating:	0 to 90% non-condensing
Storage:	0 to 95% non-condensing

Chapter 8 Register Map

8.1 Functional Description

This module is a universal input/output multi-matrix switch. It contains three switch sections:

- 1) six each ultra high frequency four pole star switches
- 2) dual 3x10 high frequency matrices
- 3) dual low frequency 8x10 matrices

Isolation circuits are provided to maintain signal performance by disconnecting unused sections of the matrices. The high and low frequency matrices are linked together through isolation relays to the common signal bus (CSB). The CSB forms 10 channels of buses that link to either the low frequency matrix or the high frequency matrix. Each circuit card (mother board and daughter board) contains a three 4 pole star switches, a 3x10 matrix, a 8x10 matrix, two isolation circuits and two sets of load resistors. Connections between the mother board and the daughter board are made through CSB.

The architecture of this module allow maximum versatility. The low frequency section can be used to support devices such as DMM's or other instruments requiring bandwidths of up to 50MHz. The high frequency section can support test equipment switching up to 50MHz. The ultra high frequency four pole star switches will support frequencies up to 700MHz. This allows simultaneous signal activities to occur in each section without interference to the other. Access between the one level of switching (mother board) to another level of switch (daughter board) is via the common signal bus.

By adding additional switch modules to each low and high frequency matrices, a very versatile switching system architecture is achieved where multi-hundred of low frequency test points could be applied to the low frequency matrix to test equipment such as voltmeters, function generators, and other low frequency type instruments. The same could be done with the high frequency section by attaching a high frequency coaxial switch tree or matrix to expand the number of coaxial channels to the four pole star switches. This will allow multiple high frequency channel access to instruments such as oscilloscopes, counters/timers, pulse generators, or other 50 ohms type instrumentation.

Terminations are provided as two sets of load resistors. Each set contain six termination values: 49.9, 75, 100, 499, 1K, 2K ohms. The first three resistors are tied together and the last three resistors are tied together. They can either be tied to ground, VCC, or through two independent external source. Each set of load resistors can be connected to any of the 10 channels in the high frequency matrix.

The common signal bus provides the path to tie the signals which need to go from the low frequency section to the high frequency section. For example, it is possible to channel a low frequency signal from the 8x10 matrix to the 3x10 and out through the 4 pole star switch for measurement by a counter or oscilloscope. In contrast, it is also possible to channel a coaxial signal that enters one of the 4 pole switches to a voltmeter through the 8x10 matrix. There are no limits to the versatility of this module.

8.2 Register Map -16 Bit (90400300-002)

PCB NUMBER: SCH85004090 Motherboard

Mode: 16 BIT

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8000h	n/a	n/a	n/a	n/a	n/a	n/a	K90	K89	K88	K87	K86	K85	K84	K83	K82	K81
8002h	n/a	n/a	n/a	n/a	n/a	n/a	K80	K79	K78	K77	K76	K75	K74	K83	K72	K71
8004h	n/a	n/a	n/a	n/a	n/a	n/a	K70	K69	K68	K67	K66	K65	K64	K63	K62	K61
8006h	n/a	n/a	n/a	n/a	n/a	n/a	K60	K59	K58	K57	K56	K55	K54	K53	K52	K51
8808h	n/a	n/a	n/a	n/a	n/a	n/a	K50	K49	K48	K47	K46	K45	K44	K43	K42	K41
800Ah	n/a	n/a	n/a	n/a	n/a	n/a	K40	K39	K38	K37	K36	K35	K34	K33	K32	K31
800Ch	n/a	n/a	n/a	n/a	n/a	n/a	K30	K29	K28	K27	K26	K25	K24	K23	K22	K21
800Eh	n/a	n/a	n/a	n/a	n/a	n/a	K20	K19	K18	K17	K16	K15	K14	K13	K12	K11
8010h	n/a	n/a	n/a	n/a	n/a	n/a	K10	K9	K8	K7	K6	K5	K4	K3	K2	K1
8012h	n/a	n/a	n/a	n/a	n/a	n/a	K100	K99	K98	K97	K96	K95	K94	K93	K92	K91
8014h	K166	K165	K164	K130	K129	K128	K127	K126	K163	K162	K161	K125	K124	K123	K122	K121
8016h	K172	K171	K170	K150	K149	K148	K147	K146	K169	K168	K169	K145	K144	K143	K142	K141
8018h	K175	K176	K173	K174	n/a	n/a	K120	K119	K118	K117	K116	K115	K114	K113	K112	K111
801Ah	K179	K186	K177	K178	n/a	n/a	K140	K139	K138	K137	K136	K135	K134	K133	K132	K131
801Ch	K183	K184	K181	K182	n/a	n/a	K160	K159	K158	K157	K156	K155	K154	K153	K152	K151
801Eh	n/a	n/a	n/a	n/a	n/a	n/a	K105	K104	K103	K102	K101	K110	K109	K108	K107	K106

PCB NUMBER: SCH85004090 Motherboard (Continued)**REGISTER: 8000h****MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	Pin 3	J 22	K81	LF ISOLATION
1	Pin 3	J 23	K82	LF ISOLATION
2	Pin 3	J 24	K83	LF ISOLATION
3	Pin 3	J 25	K84	LF ISOLATION
4	Pin 3	J 26	K85	LF ISOLATION
5	Pin 7	J 22	K86	LF ISOLATION
6	Pin 7	J 23	K87	LF ISOLATION
7	Pin 7	J 24	K88	LF ISOLATION
8	Pin 7	J 25	K89	LF ISOLATION
9	Pin 7	J 26	K90	LF ISOLATION
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8002h**MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-1	K71	U 101
1	INST. BUS 2	J 1-1	K72	U 101
2	INST. BUS 3	J 1-1	K73	U 101
3	INST. BUS 4	J 1-1	K74	U 101
4	INST. BUS 5	J 1-1	K75	U 101
5	INST. BUS 6	J 1-1	K76	U 101
6	INST. BUS 7	J 1-1	K77	U 101
7	INST. BUS 8	J 1-1	K78	U 101
8	INST. BUS 9	J 1-1	K79	U 101
9	INST. BUS 10	J 1-1	K80	U 101
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

PCB NUMBER: SCH85004090 Motherboard (Continued)**REGISTER: 8004h****MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-3	K61	U 102
1	INST. BUS 2	J 1-3	K62	U 102
2	INST. BUS 3	J 1-3	K63	U 102
3	INST. BUS 4	J 1-3	K64	U 102
4	INST. BUS 5	J 1-3	K65	U 102
5	INST. BUS 6	J 1-3	K66	U 102
6	INST. BUS 7	J 1-3	K67	U 102
7	INST. BUS 8	J 1-3	K68	U 102
8	INST. BUS 9	J 1-3	K69	U 102
9	INST. BUS 10	J 1-3	K70	U 102
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8006h**MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-5	K51	U 103
1	INST. BUS 2	J 1-5	K52	U 103
2	INST. BUS 3	J 1-5	K53	U 103
3	INST. BUS 4	J 1-5	K54	U 103
4	INST. BUS 5	J 1-5	K55	U 103
5	INST. BUS 6	J 1-5	K56	U 103
6	INST. BUS 7	J 1-5	K57	U 103
7	INST. BUS 8	J 1-5	K58	U 103
8	INST. BUS 9	J 1-5	K59	U 103
9	INST. BUS 10	J 1-5	K60	U 103
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

PCB NUMBER: SCH85004090 Motherboard (Continued)**REGISTER: 8008h****MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-7	K41	U 104
1	INST. BUS 2	J 1-7	K42	U 104
2	INST. BUS 3	J 1-7	K43	U 104
3	INST. BUS 4	J 1-7	K44	U 104
4	INST. BUS 5	J 1-7	K45	U 104
5	INST. BUS 6	J 1-7	K46	U 104
6	INST. BUS 7	J 1-7	K47	U 104
7	INST. BUS 8	J 1-7	K48	U 104
8	INST. BUS 9	J 1-7	K49	U 104
9	INST. BUS 10	J 1-7	K50	U 104
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 800Ah**MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-9	K31	U 105
1	INST. BUS 2	J 1-9	K32	U 105
2	INST. BUS 3	J 1-9	K33	U 105
3	INST. BUS 4	J 1-9	K34	U 105
4	INST. BUS 5	J 1-9	K35	U 105
5	INST. BUS 6	J 1-9	K36	U 105
6	INST. BUS 7	J 1-9	K37	U 105
7	INST. BUS 8	J 1-9	K38	U 105
8	INST. BUS 9	J 1-9	K39	U 105
9	INST. BUS 10	J 1-9	K40	U 105
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

PCB NUMBER: SCH85004090 Motherboard (Continued)**REGISTER: 800Ch****MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-11	K21	U 106
1	INST. BUS 2	J 1-11	K22	U 106
2	INST. BUS 3	J 1-11	K23	U 106
3	INST. BUS 4	J 1-11	K24	U 106
4	INST. BUS 5	J 1-11	K25	U 106
5	INST. BUS 6	J 1-11	K26	U 106
6	INST. BUS 7	J 1-11	K27	U 106
7	INST. BUS 8	J 1-11	K28	U 106
8	INST. BUS 9	J 1-11	K29	U 106
9	INST. BUS 10	J 1-11	K30	U 106
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 800Eh**MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-13	K11	U 107
1	INST. BUS 2	J 1-13	K12	U 107
2	INST. BUS 3	J 1-13	K13	U 107
3	INST. BUS 4	J 1-13	K14	U 107
4	INST. BUS 5	J 1-13	K15	U 107
5	INST. BUS 6	J 1-13	K16	U 107
6	INST. BUS 7	J 1-13	K17	U 107
7	INST. BUS 8	J 1-13	K18	U 107
8	INST. BUS 9	J 1-13	K19	U 107
9	INST. BUS 10	J 1-13	K20	U 107
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	

15	Not Used	-	-	
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PCB NUMBER: SCH85004090 Motherboard (Continued)**REGISTER: 8010h****MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-15	K1	U 108
1	INST. BUS 2	J 1-15	K2	U 108
2	INST. BUS 3	J 1-15	K3	U 108
3	INST. BUS 4	J 1-15	K4	U 108
4	INST. BUS 5	J 1-15	K5	U 108
5	INST. BUS 6	J 1-15	K6	U 108
6	INST. BUS 7	J 1-15	K7	U 108
7	INST. BUS 8	J 1-15	K8	U 108
8	INST. BUS 9	J 1-15	K9	U 108
9	INST. BUS 10	J 1-15	K10	U 108
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8012h**MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	PIN 4	J 22	K91	HF ISOLATION
1	PIN 4	J 23	K92	HF ISOLATION
2	PIN 4	J 24	K93	HF ISOLATION
3	PIN 4	J 25	K94	HF ISOLATION
4	PIN 4	J 26	K95	HF ISOLATION
5	PIN 8	J 22	K96	HF ISOLATION
6	PIN 8	J 23	K97	HF ISOLATION
7	PIN 8	J 24	K98	HF ISOLATION
8	PIN 8	J 25	K99	HF ISOLATION
9	PIN 8	J 26	K100	HF ISOLATION
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	

14	Not Used	-	-	
15	Not Used	-	-	

PCB NUMBER: SCH85004090 Motherboard (Continued)

REGISTER: 8014h

MODE: 16 bit

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-19	K121	LOAD GROUP 1
1	INST. BUS 2	J 1-19	K122	LOAD GROUP 1
2	INST. BUS 3	J 1-19	K123	LOAD GROUP 1
3	INST. BUS 4	J 1-19	K124	LOAD GROUP 1
4	INST. BUS 5	J 1-19	K125	LOAD GROUP 1
5	LOAD R5	-	K161	LOAD GROUP 1
6	LOAD R6	-	K162	LOAD GROUP 1
7	LOAD R7	-	K163	LOAD GROUP 1
8	INST. BUS 6	-	K126	LOAD GROUP 1
9	INST. BUS 7	-	K127	LOAD GROUP 1
10	INST. BUS 8	-	K128	LOAD GROUP 1
11	INST. BUS 9	-	K129	LOAD GROUP 1
12	INST. BUS 10	-	K130	LOAD GROUP 1
13	LOAD R8	-	K164	LOAD GROUP 1
14	LOAD R9	-	K165	LOAD GROUP 1
15	LOAD R10	-	K166	LOAD GROUP 1

REGISTER: 8016h

MODE: 16 bit

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-19	K141	LOAD GROUP 2
1	INST. BUS 2	J 1-19	K142	LOAD GROUP 2
2	INST. BUS 3	J 1-19	K143	LOAD GROUP 2
3	INST. BUS 4	J 1-19	K144	LOAD GROUP 2
4	INST. BUS 5	J 1-19	K145	LOAD GROUP 2
5	LOAD R11	-	K167	LOAD GROUP 2
6	LOAD R12	-	K168	LOAD GROUP 2
7	LOAD R13	-	K169	LOAD GROUP 2
8	INST. BUS 6	-	K146	LOAD GROUP 2
9	INST. BUS 7	-	K147	LOAD GROUP 2
10	INST. BUS 8	-	K148	LOAD GROUP 2
11	INST. BUS 9	-	K149	LOAD GROUP 2
12	INST. BUS 10	-	K150	LOAD GROUP 2
13	LOAD R14	-	K170	LOAD GROUP 2

14	LOAD R15	-	K171	LOAD GROUP 2
15	LOAD R16	-	K172	LOAD GROUP 2

PCB NUMBER: SCH85004090 Motherboard (Continued)**REGISTER: 8018h****MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	-	K111	HF CHAN 1
1	INST. BUS 2	-	K112	HF CHAN 1
2	INST. BUS 3	-	K113	HF CHAN 1
3	INST. BUS 4	-	K114	HF CHAN 1
4	INST. BUS 5	-	K115	HF CHAN 1
5	INST. BUS 6	-	K116	HF CHAN 1
6	INST. BUS 7	-	K117	HF CHAN 1
7	INST. BUS 8	-	K118	HF CHAN 1
8	INST. BUS 9	-	K119	HF CHAN 1
9	INST. BUS 10	-	K120	HF CHAN 1
10	Not Used	-	-	
11	Not Used	-	-	
12	4 POLE STAR 1A	J 3	K174	HF I/O 1A
13	4 POLE STAR 1B	J 4	K173	HF I/O 1B
14	4 POLE STAR 1C	J 5	K176	HF I/O 1C
15	4 POLE STAR 1D	J 5	K175	Isolation to 3 x 10 Matrix

REGISTER: 801Ah**MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	-	K131	HF CHAN 2
1	INST. BUS 2	-	K132	HF CHAN 2
2	INST. BUS 3	-	K133	HF CHAN 2
3	INST. BUS 4	-	K134	HF CHAN 2
4	INST. BUS 5	-	K135	HF CHAN 2
5	INST. BUS 6	-	K136	HF CHAN 2
6	INST. BUS 7	-	K137	HF CHAN 2
7	INST. BUS 8	-	K138	HF CHAN 2
8	INST. BUS 9	-	K139	HF CHAN 2
9	INST. BUS 10	-	K130	HF CHAN 2
10	Not Used	-	-	
11	Not Used	-	-	
12	4 POLE STAR 2A	J 6	K178	HF I/O 2A
13	4 POLE STAR 2B	J 7	K177	HF I/O 2B
14	4 POLE STAR 2C	J 8	K180	HF I/O 2C
15	4 POLE STAR 2D	J 8	K179	Isolation to 3 x 10 Matrix

PCB NUMBER: SCH85004090 Motherboard (Continued)**REGISTER: 801Ch****MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	-	K151	HF CHAN 3
1	INST. BUS 2	-	K152	HF CHAN 3
2	INST. BUS 3	-	K153	HF CHAN 3
3	INST. BUS 4	-	K154	HF CHAN 3
4	INST. BUS 5	-	K155	HF CHAN 3
5	INST. BUS 6	-	K156	HF CHAN 3
6	INST. BUS 7	-	K157	HF CHAN 3
7	INST. BUS 8	-	K158	HF CHAN 3
8	INST. BUS 9	-	K159	HF CHAN 3
9	INST. BUS 10	-	K160	HF CHAN 3
10	Not Used	-	-	
11	Not Used	-	-	
12	4 POLE STAR 3A	J 19	K182	HF I/O 3A
13	4 POLE STAR 3B	J 20	K181	HF I/O 3B
14	4 POLE STAR 3C	J 21	K184	HF I/O 3C
15	4 POLE STAR 3D	J 21	K183	Isolation to 3 x 10 Matrix

REGISTER: 801Eh**MODE: 16 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	-	K106	-
1	INST. BUS 2	-	K107	-
2	INST. BUS 3	-	K108	-
3	INST. BUS 4	-	K109	-
4	INST. BUS 5	-	K110	-
5	INST. BUS 6	-	K101	-
6	INST. BUS 7	-	K102	-
7	INST. BUS 8	-	K103	-
8	INST. BUS 9	-	K104	-
9	INST. BUS 10	-	K105	-
10	Not Used	-	-	
11	Not Used	-	-	
12	-	-	-	
13	-	-	-	
14	-	-	-	

15	-	-	-	
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PCB NUMBER: SCH85004090 Motherboard (Continued)

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8000h	n/a	n/a	n/a	n/a	n/a	n/a	K90	K89	K88	K87	K86	K85	K84	K83	K82	K81

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8000h	n/a	n/a	n/a	n/a	n/a	n/a	K80	K79	K78	K77	K76	K75	K74	K73	K72	K71

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8004h	n/a	n/a	n/a	n/a	n/a	n/a	K70	K69	K68	K67	K66	K65	K64	K63	K62	K61

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8004h	n/a	n/a	n/a	n/a	n/a	n/a	K60	K59	K58	K57	K56	K55	K54	K53	K52	K51

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8008h	n/a	n/a	n/a	n/a	n/a	n/a	K50	K49	K48	K47	K46	K45	K44	K43	K42	K41

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8008h	n/a	n/a	n/a	n/a	n/a	n/a	K40	K39	K38	K37	K36	K35	K34	K33	K32	K31

PCB NUMBER: SCH85004090 Motherboard (Continued)

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
800Ch	n/a	n/a	n/a	n/a	n/a	n/a	K30	K29	K28	K27	K26	K25	K24	K23	K22	K21

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
800Ch	n/a	n/a	n/a	n/a	n/a	n/a	K20	K19	K18	K17	K16	K15	K14	K13	K12	K11

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8010h	n/a	n/a	n/a	n/a	n/a	n/a	K10	K9	K8	K7	K6	K5	K4	K3	K2	K1

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8010h	n/a	n/a	n/a	n/a	n/a	n/a	K100	K99	K98	K97	K96	K95	K94	K93	K92	K91

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8014h	K166	K165	K164	K130	K129	K128	K127	K126	K163	K162	K161	K125	K124	K123	K122	K121

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8014h	K172	K171	K170	K150	K149	K148	K147	K146	K169	K168	K167	K145	K144	K143	K142	K141

PCB NUMBER: SCH85004090 Motherboard (Continued)

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8018h	K175	K176	K173	K174	n/a	n/a	K120	K119	K118	K117	K116	K115	K114	K113	K112	K111

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8018h	K179	K180	K177	K178	n/a	n/a	K140	K139	K138	K137	K136	K135	K134	K133	K132	K131

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
801Ch	K183	K184	K181	K182	n/a	n/a	K160	K159	K158	K157	K156	K155	K154	K153	K152	K151

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
801Ch	n/a	n/a	n/a	n/a	n/a	n/a	K105	K104	K103	K102	K101	K110	K109	K108	K107	K106

8.3 Register Description 32 Bit

PCB NUMBER: SCH85004090 Motherboard (Continued)

REGISTER: 8000h

MODE: 32 bit

FUNCTION: UNIVERSAL I/O

BITS	FUNCTION	CONNECTION	RELAY	COMMENT
0	Pin 3	J 22	K81	LF ISOLATION
1	Pin 3	J 23	K82	LF ISOLATION
2	Pin 3	J 24	K83	LF ISOLATION
3	Pin 3	J 25	K84	LF ISOLATION
4	Pin 3	J 26	K85	LF ISOLATION
5	Pin 7	J 22	K86	LF ISOLATION
6	Pin 7	J 23	K87	LF ISOLATION
7	Pin 7	J 24	K88	LF ISOLATION
8	Pin 7	J 25	K89	LF ISOLATION
9	Pin 7	J 26	K90	LF ISOLATION
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8000h

MODE: 32 bit

FUNCTION: UNIVERSAL I/O

BITS	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	J 1-1	K71	U 101
17	INST. BUS 2	J 1-1	K72	U 101
18	INST. BUS 3	J 1-1	K73	U 101
19	INST. BUS 4	J 1-1	K74	U 101
20	INST. BUS 5	J 1-1	K75	U 101
21	INST. BUS 6	J 1-1	K76	U 101
22	INST. BUS 7	J 1-1	K77	U 101
23	INST. BUS 8	J 1-1	K78	U 101
24	INST. BUS 9	J 1-1	K79	U 101
25	INST. BUS 10	J 1-1	K80	U 101
26	Not Used	-	-	
27	Not Used	-	-	
28	Not Used	-	-	
29	Not Used	-	-	
30	Not Used	-	-	
31	Not Used	-	-	

PCB NUMBER: SCH85004090 Motherboard (Continued)**REGISTER: 8004h****MODE: 32 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-3	K61	U 102
1	INST. BUS 2	J 1-3	K62	U 102
2	INST. BUS 3	J 1-3	K63	U 102
3	INST. BUS 4	J 1-3	K64	U 102
4	INST. BUS 5	J 1-3	K65	U 102
5	INST. BUS 6	J 1-3	K66	U 102
6	INST. BUS 7	J 1-3	K67	U 102
7	INST. BUS 8	J 1-3	K68	U 102
8	INST. BUS 9	J 1-3	K69	U 102
9	INST. BUS 10	J 1-3	K70	U 102
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8004h**MODE: 32 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	J 1-5	K51	U 103
17	INST. BUS 2	J 1-5	K52	U 103
18	INST. BUS 3	J 1-5	K53	U 103
19	INST. BUS 4	J 1-5	K54	U 103
20	INST. BUS 5	J 1-5	K55	U 103
21	INST. BUS 6	J 1-5	K56	U 103
22	INST. BUS 7	J 1-5	K57	U 103
23	INST. BUS 8	J 1-5	K58	U 103
24	INST. BUS 9	J 1-5	K59	U 103
25	INST. BUS 10	J 1-5	K60	U 103
26	Not Used	-	-	
27	Not Used	-	-	
28	Not Used	-	-	
29	Not Used	-	-	
30	Not Used	-	-	
31	Not Used	-	-	

PCB NUMBER: SCH85004090 Motherboard (Continued)**REGISTER: 8008h****MODE: 32 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-7	K41	U 104
1	INST. BUS 2	J 1-7	K42	U 104
2	INST. BUS 3	J 1-7	K43	U 104
3	INST. BUS 4	J 1-7	K44	U 104
4	INST. BUS 5	J 1-7	K45	U 104
5	INST. BUS 6	J 1-7	K46	U 104
6	INST. BUS 7	J 1-7	K47	U 104
7	INST. BUS 8	J 1-7	K48	U 104
8	INST. BUS 9	J 1-7	K49	U 104
9	INST. BUS 10	J 1-7	K50	U 104
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8008h**MODE: 32 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	J 1-9	K31	U 105
17	INST. BUS 2	J 1-9	K32	U 105
18	INST. BUS 3	J 1-9	K33	U 105
19	INST. BUS 4	J 1-9	K34	U 105
20	INST. BUS 5	J 1-9	K35	U 105
21	INST. BUS 6	J 1-9	K36	U 105
22	INST. BUS 7	J 1-9	K37	U 105
23	INST. BUS 8	J 1-9	K38	U 105
24	INST. BUS 9	J 1-9	K39	U 105
25	INST. BUS 10	J 1-9	K40	U 105
26	Not Used	-	-	
27	Not Used	-	-	
28	Not Used	-	-	
29	Not Used	-	-	
30	Not Used	-	-	
31	Not Used	-	-	

PCB NUMBER: SCH85004090 Motherboard (Continued)**REGISTER: 8006h****MODE: 32 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-11	K21	U 106
1	INST. BUS 2	J 1-11	K22	U 106
2	INST. BUS 3	J 1-11	K23	U 106
3	INST. BUS 4	J 1-11	K24	U 106
4	INST. BUS 5	J 1-11	K25	U 106
5	INST. BUS 6	J 1-11	K26	U 106
6	INST. BUS 7	J 1-11	K27	U 106
7	INST. BUS 8	J 1-11	K28	U 106
8	INST. BUS 9	J 1-11	K29	U 106
9	INST. BUS 10	J 1-11	K30	U 106
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8006h**MODE: 32 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	J 1-13	K11	U 107
17	INST. BUS 2	J 1-13	K12	U 107
18	INST. BUS 3	J 1-13	K13	U 107
19	INST. BUS 4	J 1-13	K14	U 107
20	INST. BUS 5	J 1-13	K15	U 107
21	INST. BUS 6	J 1-13	K16	U 107
22	INST. BUS 7	J 1-13	K17	U 107
23	INST. BUS 8	J 1-13	K18	U 107
24	INST. BUS 9	J 1-13	K19	U 107
25	INST. BUS 10	J 1-13	K20	U 107
26	Not Used	-	-	
27	Not Used	-	-	
28	Not Used	-	-	
29	Not Used	-	-	
30	Not Used	-	-	

31	Not Used	-	-	
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PCB NUMBER: SCH85004090 Motherboard (Continued)

REGISTER: 8010h

MODE: 32 bit

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-15	K1	U 108
1	INST. BUS 2	J 1-15	K2	U 108
2	INST. BUS 3	J 1-15	K3	U 108
3	INST. BUS 4	J 1-15	K4	U 108
4	INST. BUS 5	J 1-15	K5	U 108
5	INST. BUS 6	J 1-15	K6	U 108
6	INST. BUS 7	J 1-15	K7	U 108
7	INST. BUS 8	J 1-15	K8	U 108
8	INST. BUS 9	J 1-15	K9	U 108
9	INST. BUS 10	J 1-15	K10	U 108
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8010h

MODE: 32 bit

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	PIN 4	J 22	K91	HF ISOLATION
17	PIN 4	J 23	K92	HF ISOLATION
18	PIN 4	J 24	K93	HF ISOLATION
19	PIN 4	J 25	K94	HF ISOLATION
20	PIN 4	J 26	K95	HF ISOLATION
21	PIN 8	J 22	K96	HF ISOLATION
22	PIN 8	J 23	K97	HF ISOLATION
23	PIN 8	J 24	K98	HF ISOLATION
24	PIN 8	J 25	K99	HF ISOLATION
25	PIN 8	J 26	K100	HF ISOLATION
26	Not Used	-	-	
27	Not Used	-	-	
28	Not Used	-	-	
29	Not Used	-	-	

30	Not Used	-	-	
31	Not Used	-	-	

PCB NUMBER: SCH85004090 Motherboard (Continued)**REGISTER: 8014h****MODE: 32 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 1-19	K121	LOAD GROUP 1
1	INST. BUS 2	J 1-19	K122	LOAD GROUP 1
2	INST. BUS 3	J 1-19	K123	LOAD GROUP 1
3	INST. BUS 4	J 1-19	K124	LOAD GROUP 1
4	INST. BUS 5	J 1-19	K125	LOAD GROUP 1
5	LOAD R5	-	K161	LOAD GROUP 1
6	LOAD R6	-	K162	LOAD GROUP 1
7	LOAD R7	-	K163	LOAD GROUP 1
8	INST. BUS 6	-	K126	LOAD GROUP 1
9	INST. BUS 7	-	K127	LOAD GROUP 1
10	INST. BUS 8	-	K128	LOAD GROUP 1
11	INST. BUS 9	-	K129	LOAD GROUP 1
12	INST. BUS 10	-	K130	LOAD GROUP 1
13	LOAD R8	-	K164	LOAD GROUP 1
14	LOAD R9	-	K165	LOAD GROUP 1
15	LOAD R10	-	K166	LOAD GROUP 1

REGISTER: 8014h**MODE: 32 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	J 1-19	K141	LOAD GROUP 2
17	INST. BUS 2	J 1-19	K142	LOAD GROUP 2
18	INST. BUS 3	J 1-19	K143	LOAD GROUP 2
19	INST. BUS 4	J 1-19	K144	LOAD GROUP 2
20	INST. BUS 5	J 1-19	K145	LOAD GROUP 2
21	LOAD R11	-	K167	LOAD GROUP 2
22	LOAD R12	-	K168	LOAD GROUP 2
23	LOAD R13	-	K169	LOAD GROUP 2
24	INST. BUS 6	-	K146	LOAD GROUP 2
25	INST. BUS 7	-	K147	LOAD GROUP 2
26	INST. BUS 8	-	K148	LOAD GROUP 2
27	INST. BUS 9	-	K149	LOAD GROUP 2
28	INST. BUS 10	-	K150	LOAD GROUP 2

29	LOAD R14	-	K170	LOAD GROUP 2
30	LOAD R15	-	K171	LOAD GROUP 2
31	LOAD R16	-	K172	LOAD GROUP 2

PCB NUMBER: SCH85004090 Motherboard (Continued)**REGISTER: 8018h****MODE: 32 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	-	K111	HF CHAN 1
1	INST. BUS 2	-	K112	HF CHAN 1
2	INST. BUS 3	-	K113	HF CHAN 1
3	INST. BUS 4	-	K114	HF CHAN 1
4	INST. BUS 5	-	K115	HF CHAN 1
5	INST. BUS 6	-	K116	HF CHAN 1
6	INST. BUS 7	-	K117	HF CHAN 1
7	INST. BUS 8	-	K118	HF CHAN 1
8	INST. BUS 9	-	K119	HF CHAN 1
9	INST. BUS 10	-	K120	HF CHAN 1
10	Not Used	-	-	
11	Not Used	-	-	
12	4 POLE STAR 1A	J 3	K174	HF I/O 1A
13	4 POLE STAR 1B	J 4	K173	HF I/O 1B
14	4 POLE STAR 1C	J 5	K176	HF I/O 1C
15	4 POLE STAR 1D	J 5	K175	Isolation to 3 x 10 Matrix

REGISTER: 8018h**MODE: 32 bit****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	-	K131	HF CHAN 2
17	INST. BUS 2	-	K132	HF CHAN 2
18	INST. BUS 3	-	K133	HF CHAN 2
19	INST. BUS 4	-	K134	HF CHAN 2
20	INST. BUS 5	-	K135	HF CHAN 2
21	INST. BUS 6	-	K136	HF CHAN 2
22	INST. BUS 7	-	K137	HF CHAN 2
23	INST. BUS 8	-	K138	HF CHAN 2
24	INST. BUS 9	-	K139	HF CHAN 2
25	INST. BUS 10	-	K130	HF CHAN 2
26	Not Used	-	-	
27	Not Used	-	-	

28	4 POLE STAR 2A	J 6	K178	HF I/O 2A
29	4 POLE STAR 2B	J 7	K177	HF I/O 2B
30	4 POLE STAR 2C	J 8	K180	HF I/O 2C
31	4 POLE STAR 2D	J 8	K179	Isolation to 3 x 10 Matrix

PCB NUMBER: SCH85004090 Motherboard (Continued)

REGISTER: 801Ch

MODE: 32 bit

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	-	K151	HF CHAN 3
1	INST. BUS 2	-	K152	HF CHAN 3
2	INST. BUS 3	-	K153	HF CHAN 3
3	INST. BUS 4	-	K154	HF CHAN 3
4	INST. BUS 5	-	K155	HF CHAN 3
5	INST. BUS 6	-	K156	HF CHAN 3
6	INST. BUS 7	-	K157	HF CHAN 3
7	INST. BUS 8	-	K158	HF CHAN 3
8	INST. BUS 9	-	K159	HF CHAN 3
9	INST. BUS 10	-	K160	HF CHAN 3
10	Not Used	-	-	
11	Not Used	-	-	
12	4 POLE STAR 3A	J 19	K182	HF I/O 3A
13	4 POLE STAR 3B	J 20	K181	HF I/O 3B
14	4 POLE STAR 3C	J 21	K184	HF I/O 3C
15	4 POLE STAR 3D	J 21	K183	Isolation to 3 x 10 Matrix

REGISTER: 801Ch

MODE: 32 bit

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	-	K106	-
17	INST. BUS 2	-	K107	-
18	INST. BUS 3	-	K108	-
19	INST. BUS 4	-	K109	-
20	INST. BUS 5	-	K110	-
21	INST. BUS 6	-	K101	-
22	INST. BUS 7	-	K102	-
23	INST. BUS 8	-	K103	-
24	INST. BUS 9	-	K104	-
25	INST. BUS 10	-	K105	-

26	Not Used	-	-	
27	Not Used	-	-	
28	-	-	-	
29	-	-	-	
30	-	-	-	
31	-	-	-	

PCB NUMBER: SCH85005000 Daughterboard #1**Mode: 16 BIT**

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8020h	n/a	n/a	n/a	n/a	n/a	n/a	K90	K89	K88	K87	K86	K85	K84	K83	K82	K81
8022h	n/a	n/a	n/a	n/a	n/a	n/a	K80	K79	K78	K77	K76	K75	K74	K83	K72	K71
8024h	n/a	n/a	n/a	n/a	n/a	n/a	K70	K69	K68	K67	K66	K65	K64	K63	K62	K61
8026h	n/a	n/a	n/a	n/a	n/a	n/a	K60	K59	K58	K57	K56	K55	K54	K53	K52	K51
8828h	n/a	n/a	n/a	n/a	n/a	n/a	K50	K49	K48	K47	K46	K45	K44	K43	K42	K41
802Ah	n/a	n/a	n/a	n/a	n/a	n/a	K40	K39	K38	K37	K36	K35	K34	K33	K32	K31
802Ch	n/a	n/a	n/a	n/a	n/a	n/a	K30	K29	K28	K27	K26	K25	K24	K23	K22	K21
802Eh	n/a	n/a	n/a	n/a	n/a	n/a	K20	K19	K18	K17	K16	K15	K14	K13	K12	K11
8030h	n/a	n/a	n/a	n/a	n/a	n/a	K10	K9	K8	K7	K6	K5	K4	K3	K2	K1
8032h	n/a	n/a	n/a	n/a	n/a	n/a	K100	K99	K98	K97	K96	K95	K94	K93	K92	K91
8034h	K166	K165	K164	K130	K129	K128	K127	K126	K163	K162	K161	K125	K124	K123	K122	K121
8036h	K172	K171	K170	K150	K149	K148	K147	K146	K169	K168	K169	K145	K144	K143	K142	K141
8038h	K175	K176	K173	K174	n/a	n/a	K120	K119	K118	K117	K116	K115	K114	K113	K112	K111
803Ah	K179	K186	K177	K178	n/a	n/a	K140	K139	K138	K137	K136	K135	K134	K133	K132	K131
803Ch	K183	K184	K181	K182	n/a	n/a	K160	K159	K158	K157	K156	K155	K154	K153	K152	K151

PCB NUMBER: SCH85005000 Daughterboard #2**Mode: 16 BIT**

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8040h	n/a	n/a	n/a	n/a	n/a	n/a	K90	K89	K88	K87	K86	K85	K84	K83	K82	K81
8042h	n/a	n/a	n/a	n/a	n/a	n/a	K80	K79	K78	K77	K76	K75	K74	K83	K72	K71
8044h	n/a	n/a	n/a	n/a	n/a	n/a	K70	K69	K68	K67	K66	K65	K64	K63	K62	K61
8046h	n/a	n/a	n/a	n/a	n/a	n/a	K60	K59	K58	K57	K56	K55	K54	K53	K52	K51
8848h	n/a	n/a	n/a	n/a	n/a	n/a	K50	K49	K48	K47	K46	K45	K44	K43	K42	K41
804Ah	n/a	n/a	n/a	n/a	n/a	n/a	K40	K39	K38	K37	K36	K35	K34	K33	K32	K31
804Ch	n/a	n/a	n/a	n/a	n/a	n/a	K30	K29	K28	K27	K26	K25	K24	K23	K22	K21
804Eh	n/a	n/a	n/a	n/a	n/a	n/a	K20	K19	K18	K17	K16	K15	K14	K13	K12	K11
8050h	n/a	n/a	n/a	n/a	n/a	n/a	K10	K9	K8	K7	K6	K5	K4	K3	K2	K1
8052h	n/a	n/a	n/a	n/a	n/a	n/a	K100	K99	K98	K97	K96	K95	K94	K93	K92	K91
8054h	K166	K165	K164	K130	K129	K128	K127	K126	K163	K162	K161	K125	K124	K123	K122	K121
8056h	K172	K171	K170	K150	K149	K148	K147	K146	K169	K168	K169	K145	K144	K143	K142	K141
8058h	K175	K176	K173	K174	n/a	n/a	K120	K119	K118	K117	K116	K115	K114	K113	K112	K111
805Ah	K179	K186	K177	K178	n/a	n/a	K140	K139	K138	K137	K136	K135	K134	K133	K132	K131
805Ch	K183	K184	K181	K182	n/a	n/a	K160	K159	K158	K157	K156	K155	K154	K153	K152	K151

PCB NUMBER: SCH85005000 Daughterboard #3**Mode: 16 BIT**

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8060h	n/a	n/a	n/a	n/a	n/a	n/a	K90	K89	K88	K87	K86	K85	K84	K83	K82	K81
8062h	n/a	n/a	n/a	n/a	n/a	n/a	K80	K79	K78	K77	K76	K75	K74	K83	K72	K71
8064h	n/a	n/a	n/a	n/a	n/a	n/a	K70	K69	K68	K67	K66	K65	K64	K63	K62	K61
8066h	n/a	n/a	n/a	n/a	n/a	n/a	K60	K59	K58	K57	K56	K55	K54	K53	K52	K51
8868h	n/a	n/a	n/a	n/a	n/a	n/a	K50	K49	K48	K47	K46	K45	K44	K43	K42	K41
806Ah	n/a	n/a	n/a	n/a	n/a	n/a	K40	K39	K38	K37	K36	K35	K34	K33	K32	K31

806Ch	n/a	n/a	n/a	n/a	n/a	n/a	K30	K29	K28	K27	K26	K25	K24	K23	K22	K21
806Eh	n/a	n/a	n/a	n/a	n/a	n/a	K20	K19	K18	K17	K16	K15	K14	K13	K12	K11
8070h	n/a	n/a	n/a	n/a	n/a	n/a	K10	K9	K8	K7	K6	K5	K4	K3	K2	K1
8072h	n/a	n/a	n/a	n/a	n/a	n/a	K100	K99	K98	K97	K96	K95	K94	K93	K92	K91
8074h	K166	K165	K164	K130	K129	K128	K127	K126	K163	K162	K161	K125	K124	K123	K122	K121
8076h	K172	K171	K170	K150	K149	K148	K147	K146	K169	K168	K169	K145	K144	K143	K142	K141
8078h	K175	K176	K173	K174	n/a	n/a	K120	K119	K118	K117	K116	K115	K114	K113	K112	K111
807Ah	K179	K186	K177	K178	n/a	n/a	K140	K139	K138	K137	K136	K135	K134	K133	K132	K131
807Ch	K183	K184	K181	K182	n/a	n/a	K160	K159	K158	K157	K156	K155	K154	K153	K152	K151

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3

REGISTER: 8020h

MODE: 16 bit,, Daughterboard #1

REGISTER: 8040h

MODE: 16 bit,, Daughterboard #2

REGISTER: 8060h

MODE: 16 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	Pin 3	J 22	K81	LF ISOLATION
1	Pin 3	J 23	K82	LF ISOLATION
2	Pin 3	J 24	K83	LF ISOLATION
3	Pin 3	J 25	K84	LF ISOLATION
4	Pin 3	J 26	K85	LF ISOLATION
5	Pin 7	J 22	K86	LF ISOLATION
6	Pin 7	J 23	K87	LF ISOLATION
7	Pin 7	J 24	K88	LF ISOLATION
8	Pin 7	J 25	K89	LF ISOLATION
9	Pin 7	J 26	K90	LF ISOLATION
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8022h

MODE: 16 bit,, Daughterboard #1

REGISTER: 8042h

MODE: 16 bit,, Daughterboard #2

REGISTER: 8062h

MODE: 16 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-1	K71	U 101
1	INST. BUS 2	J 12-1	K72	U 101
2	INST. BUS 3	J 12-1	K73	U 101
3	INST. BUS 4	J 12-1	K74	U 101
4	INST. BUS 5	J 12-1	K75	U 101
5	INST. BUS 6	J 12-1	K76	U 101
6	INST. BUS 7	J 12-1	K77	U 101
7	INST. BUS 8	J 12-1	K78	U 101
8	INST. BUS 9	J 12-1	K79	U 101
9	INST. BUS 10	J 12-1	K80	U 101

10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3**REGISTER: 8024h****MODE: 16 bit,, Daughterboard #1****REGISTER: 8044h****MODE: 16 bit,, Daughterboard #2****REGISTER: 8064h****MODE: 16 bit,, Daughterboard #3****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-3	K61	U 102
1	INST. BUS 2	J 12-3	K62	U 102
2	INST. BUS 3	J 12-3	K63	U 102
3	INST. BUS 4	J 12-3	K64	U 102
4	INST. BUS 5	J 12-3	K65	U 102
5	INST. BUS 6	J 12-3	K66	U 102
6	INST. BUS 7	J 12-3	K67	U 102
7	INST. BUS 8	J 12-3	K68	U 102
8	INST. BUS 9	J 12-3	K69	U 102
9	INST. BUS 10	J 12-3	K70	U 102
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8026h**MODE: 16 bit,, Daughterboard #1****REGISTER: 8046h****MODE: 16 bit,, Daughterboard #2****REGISTER: 8066h****MODE: 16 bit,, Daughterboard #3****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-5	K51	U 103
1	INST. BUS 2	J 12-5	K52	U 103
2	INST. BUS 3	J 12-5	K53	U 103
3	INST. BUS 4	J 12-5	K54	U 103
4	INST. BUS 5	J 12-5	K55	U 103
5	INST. BUS 6	J 12-5	K56	U 103
6	INST. BUS 7	J 12-5	K57	U 103
7	INST. BUS 8	J 12-5	K58	U 103
8	INST. BUS 9	J 12-5	K59	U 103
9	INST. BUS 10	J 12-5	K60	U 103

10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3**REGISTER: 8028h****MODE: 16 bit,, Daughterboard #1****REGISTER: 8048h****MODE: 16 bit,, Daughterboard #2****REGISTER: 8068h****MODE: 16 bit,, Daughterboard #3****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-7	K41	U 104
1	INST. BUS 2	J 12-7	K42	U 104
2	INST. BUS 3	J 12-7	K43	U 104
3	INST. BUS 4	J 12-7	K44	U 104
4	INST. BUS 5	J 12-7	K45	U 104
5	INST. BUS 6	J 12-7	K46	U 104
6	INST. BUS 7	J 12-7	K47	U 104
7	INST. BUS 8	J 12-7	K48	U 104
8	INST. BUS 9	J 12-7	K49	U 104
9	INST. BUS 10	J 12-7	K50	U 104
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 802Ah**MODE: 16 bit,, Daughterboard #1****REGISTER: 804Ah****MODE: 16 bit,, Daughterboard #2****REGISTER: 806Ah****MODE: 16 bit,, Daughterboard #3****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-9	K31	U 105
1	INST. BUS 2	J 12-9	K32	U 105
2	INST. BUS 3	J 12-9	K33	U 105
3	INST. BUS 4	J 12-9	K34	U 105
4	INST. BUS 5	J 12-9	K35	U 105
5	INST. BUS 6	J 12-9	K36	U 105
6	INST. BUS 7	J 12-9	K37	U 105
7	INST. BUS 8	J 12-9	K38	U 105
8	INST. BUS 9	J 12-9	K39	U 105
9	INST. BUS 10	J 12-9	K40	U 105

10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3**REGISTER: 802Ch****MODE: 16 bit,, Daughterboard #1****REGISTER: 804Ch****MODE: 16 bit,, Daughterboard #2****REGISTER: 806Ch****MODE: 16 bit,, Daughterboard #3****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-11	K21	U 106
1	INST. BUS 2	J 12-11	K22	U 106
2	INST. BUS 3	J 12-11	K23	U 106
3	INST. BUS 4	J 12-11	K24	U 106
4	INST. BUS 5	J 12-11	K25	U 106
5	INST. BUS 6	J 12-11	K26	U 106
6	INST. BUS 7	J 12-11	K27	U 106
7	INST. BUS 8	J 12-11	K28	U 106
8	INST. BUS 9	J 12-11	K29	U 106
9	INST. BUS 10	J 12-11	K30	U 106
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 802Eh**MODE: 16 bit,, Daughterboard #1****REGISTER: 804Eh****MODE: 16 bit,, Daughterboard #2****REGISTER: 806Eh****MODE: 16 bit,, Daughterboard #3****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-13	K11	U 107
1	INST. BUS 2	J 12-13	K12	U 107
2	INST. BUS 3	J 12-13	K13	U 107
3	INST. BUS 4	J 12-13	K14	U 107
4	INST. BUS 5	J 12-13	K15	U 107
5	INST. BUS 6	J 12-13	K16	U 107
6	INST. BUS 7	J 12-13	K17	U 107
7	INST. BUS 8	J 12-13	K18	U 107
8	INST. BUS 9	J 12-13	K19	U 107
9	INST. BUS 10	J 12-13	K20	U 107

10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3**REGISTER: 8030h****MODE: 16 bit,, Daughterboard #1****REGISTER: 8050h****MODE: 16 bit,, Daughterboard #2****REGISTER: 8070h****MODE: 16 bit,, Daughterboard #3****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-15	K1	U 108
1	INST. BUS 2	J 12-15	K2	U 108
2	INST. BUS 3	J 12-15	K3	U 108
3	INST. BUS 4	J 12-15	K4	U 108
4	INST. BUS 5	J 12-15	K5	U 108
5	INST. BUS 6	J 12-15	K6	U 108
6	INST. BUS 7	J 12-15	K7	U 108
7	INST. BUS 8	J 12-15	K8	U 108
8	INST. BUS 9	J 12-15	K9	U 108
9	INST. BUS 10	J 12-15	K10	U 108
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8032h**MODE: 16 bit,, Daughterboard #1****REGISTER: 8052h****MODE: 16 bit,, Daughterboard #2****REGISTER: 8072h****MODE: 16 bit,, Daughterboard #3****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	PIN 4	J 22	K91	HF ISOLATION
1	PIN 4	J 23	K92	HF ISOLATION
2	PIN 4	J 24	K93	HF ISOLATION
3	PIN 4	J 25	K94	HF ISOLATION
4	PIN 4	J 26	K95	HF ISOLATION
5	PIN 8	J 22	K96	HF ISOLATION
6	PIN 8	J 23	K97	HF ISOLATION
7	PIN 8	J 24	K98	HF ISOLATION
8	PIN 8	J 25	K99	HF ISOLATION
9	PIN 8	J 26	K100	HF ISOLATION

10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3**REGISTER: 8034h****MODE: 16 bit,, Daughterboard #1****REGISTER: 8054h****MODE: 16 bit,, Daughterboard #2****REGISTER: 8074h****MODE: 16 bit,, Daughterboard #3****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-19	K121	LOAD GROUP 1
1	INST. BUS 2	J 12-19	K122	LOAD GROUP 1
2	INST. BUS 3	J 12-19	K123	LOAD GROUP 1
3	INST. BUS 4	J 12-19	K124	LOAD GROUP 1
4	INST. BUS 5	J 12-19	K125	LOAD GROUP 1
5	LOAD R5	-	K161	LOAD GROUP 1
6	LOAD R6	-	K162	LOAD GROUP 1
7	LOAD R7	-	K163	LOAD GROUP 1
8	INST. BUS 6	-	K126	LOAD GROUP 1
9	INST. BUS 7	-	K127	LOAD GROUP 1
10	INST. BUS 8	-	K128	LOAD GROUP 1
11	INST. BUS 9	-	K129	LOAD GROUP 1
12	INST. BUS 10	-	K130	LOAD GROUP 1
13	LOAD R8	-	K164	LOAD GROUP 1
14	LOAD R9	-	K165	LOAD GROUP 1
15	LOAD R10	-	K166	LOAD GROUP 1

REGISTER: 8036h**MODE: 16 bit,, Daughterboard #1****REGISTER: 8056h****MODE: 16 bit,, Daughterboard #2****REGISTER: 8076h****MODE: 16 bit,, Daughterboard #3****FUNCTION: UNIVERSAL I/O**

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-19	K141	LOAD GROUP 2
1	INST. BUS 2	J 12-19	K142	LOAD GROUP 2
2	INST. BUS 3	J 12-19	K143	LOAD GROUP 2
3	INST. BUS 4	J 12-19	K144	LOAD GROUP 2
4	INST. BUS 5	J 12-19	K145	LOAD GROUP 2
5	LOAD R11	-	K167	LOAD GROUP 2
6	LOAD R12	-	K168	LOAD GROUP 2
7	LOAD R13	-	K169	LOAD GROUP 2
8	INST. BUS 6	-	K146	LOAD GROUP 2
9	INST. BUS 7	-	K147	LOAD GROUP 2

10	INST. BUS 8	-	K148	LOAD GROUP 2
11	INST. BUS 9	-	K149	LOAD GROUP 2
12	INST. BUS 10	-	K150	LOAD GROUP 2
13	LOAD R14	-	K170	LOAD GROUP 2
14	LOAD R15	-	K171	LOAD GROUP 2
15	LOAD R16	-	K172	LOAD GROUP 2

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3

REGISTER: 8038h

MODE: 16 bit,, Daughterboard #1

REGISTER: 8058h

MODE: 16 bit,, Daughterboard #2

REGISTER: 8078h

MODE: 16 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	-	K111	HF CHAN 1
1	INST. BUS 2	-	K112	HF CHAN 1
2	INST. BUS 3	-	K113	HF CHAN 1
3	INST. BUS 4	-	K114	HF CHAN 1
4	INST. BUS 5	-	K115	HF CHAN 1
5	INST. BUS 6	-	K116	HF CHAN 1
6	INST. BUS 7	-	K117	HF CHAN 1
7	INST. BUS 8	-	K118	HF CHAN 1
8	INST. BUS 9	-	K119	HF CHAN 1
9	INST. BUS 10	-	K120	HF CHAN 1
10	Not Used	-	-	
11	Not Used	-	-	
12	4 POLE STAR 1A	J 13	K174	HF I/O 1A
13	4 POLE STAR 1B	J 14	K173	HF I/O 1B
14	4 POLE STAR 1C	J 15	K176	HF I/O 1C
15	4 POLE STAR 1D	J 15	K175	Isolation to 3 x 10 Matrix

REGISTER: 803Ah

MODE: 16 bit,, Daughterboard #1

REGISTER: 805Ah

MODE: 16 bit,, Daughterboard #2

REGISTER: 807Ah

MODE: 16 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	-	K131	HF CHAN 2
17	INST. BUS 2	-	K132	HF CHAN 2
18	INST. BUS 3	-	K133	HF CHAN 2
19	INST. BUS 4	-	K134	HF CHAN 2
20	INST. BUS 5	-	K135	HF CHAN 2
21	INST. BUS 6	-	K136	HF CHAN 2
22	INST. BUS 7	-	K137	HF CHAN 2
23	INST. BUS 8	-	K138	HF CHAN 2
24	INST. BUS 9	-	K139	HF CHAN 2
25	INST. BUS 10	-	K130	HF CHAN 2

26	Not Used	-	-	
27	Not Used	-	-	
28	4 POLE STAR 2A	J 16	K178	HF I/O 2A
29	4 POLE STAR 2B	J 17	K177	HF I/O 2B
30	4 POLE STAR 2C	J 18	K180	HF I/O 2C
31	4 POLE STAR 2D	J 18	K179	Isolation to 3 x 10 Matrix

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3

REGISTER: 803Ch

MODE: 16 bit,, Daughterboard #1

REGISTER: 805Ch

MODE: 16 bit,, Daughterboard #2

REGISTER: 807Ch

MODE: 16 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST.BUS1	-	K151	HFCHAN3
1	INST.BUS2	-	K152	HFCHAN3
2	INST.BUS3	-	K153	HFCHAN3
3	INST.BUS4	-	K154	HFCHAN3
4	INST.BUS5	-	K155	HFCHAN3
5	INST.BUS6	-	K156	HFCHAN3
6	INST.BUS7	-	K157	HFCHAN3
7	INST.BUS8	-	K158	HFCHAN3
8	INST.BUS9	-	K159	HFCHAN3
9	INST.BUS10	-	K160	HFCHAN3
10	NotUsed	-	-	
11	NotUsed	-	-	
12	4POLESTAR3A	J19	K182	HFI/O3A
13	4POLESTAR3B	J20	K181	HFI/O3B
14	4POLESTAR3C	J21	K184	HFI/O3C
15	4POLESTAR3D	J21	K183	Isolationto3x10Matrix

PCB NUMBER: SCH85005000 Daughterboard #1**Mode: 32 BIT**

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8020h	n/a	n/a	n/a	n/a	n/a	n/a	K90	K89	K88	K87	K86	K85	K84	K83	K82	K81

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8020h	n/a	n/a	n/a	n/a	n/a	n/a	K80	K79	K78	K77	K76	K75	K74	K73	K72	K71

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8024h	n/a	n/a	n/a	n/a	n/a	n/a	K70	K69	K68	K67	K66	K65	K64	K63	K62	K61

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8024h	n/a	n/a	n/a	n/a	n/a	n/a	K60	K59	K58	K57	K56	K55	K54	K53	K52	K51

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8028h	n/a	n/a	n/a	n/a	n/a	n/a	K50	K49	K48	K47	K46	K45	K44	K43	K42	K41

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8028h	n/a	n/a	n/a	n/a	n/a	n/a	K40	K39	K38	K37	K36	K35	K34	K33	K32	K31

PCB NUMBER: SCH85005000 Daughterboard #1 (Continued)**Mode: 32 BIT**

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
802Ch	n/a	n/a	n/a	n/a	n/a	n/a	K30	K29	K28	K27	K26	K25	K24	K23	K22	K21

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
802Ch	n/a	n/a	n/a	n/a	n/a	n/a	K20	K19	K18	K17	K16	K15	K14	K13	K12	K11

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8030h	n/a	n/a	n/a	n/a	n/a	n/a	K10	K9	K8	K7	K6	K5	K4	K3	K2	K1

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8030h	n/a	n/a	n/a	n/a	n/a	n/a	K100	K99	K98	K97	K96	K95	K94	K93	K92	K91

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8034h	K166	K165	K164	K130	K129	K128	K127	K126	K163	K162	K161	K125	K124	K123	K122	K121

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8034h	K172	K171	K170	K150	K149	K148	K147	K146	K169	K168	K167	K145	K144	K143	K142	K141

PCB NUMBER: SCH85005000 Daughterboard #1 (Continued)**Mode: 32 BIT**

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8038h	K175	K176	K173	K174	n/a	n/a	K120	K119	K118	K117	K116	K115	K114	K113	K112	K111

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8038h	K179	K180	K177	K178	n/a	n/a	K140	K139	K138	K137	K136	K135	K134	K133	K132	K131

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
803Ch	K183	K184	K181	K182	n/a	n/a	K160	K159	K158	K157	K156	K155	K154	K153	K152	K151

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
803Ch	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

8.4 Register Map -32 Bit for (90400300-003)

PCB NUMBER: SCH85005000 Daughterboard #2

Mode: 32 BIT

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8040h	n/a	n/a	n/a	n/a	n/a	n/a	K90	K89	K88	K87	K86	K85	K84	K83	K82	K81

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8040h	n/a	n/a	n/a	n/a	n/a	n/a	K80	K79	K78	K77	K76	K75	K74	K73	K72	K71

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8044h	n/a	n/a	n/a	n/a	n/a	n/a	K70	K69	K68	K67	K66	K65	K64	K63	K62	K61

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8044h	n/a	n/a	n/a	n/a	n/a	n/a	K60	K59	K58	K57	K56	K55	K54	K53	K52	K51

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8048h	n/a	n/a	n/a	n/a	n/a	n/a	K50	K49	K48	K47	K46	K45	K44	K43	K42	K41

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8048h	n/a	n/a	n/a	n/a	n/a	n/a	K40	K39	K38	K37	K36	K35	K34	K33	K32	K31

PCB NUMBER: SCH85005000 Daughterboard #2 (Continued)**Mode: 32 BIT**

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
804Ch	n/a	n/a	n/a	n/a	n/a	n/a	K30	K29	K28	K27	K26	K25	K24	K23	K22	K21

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
804Ch	n/a	n/a	n/a	n/a	n/a	n/a	K20	K19	K18	K17	K16	K15	K14	K13	K12	K11

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8050h	n/a	n/a	n/a	n/a	n/a	n/a	K10	K9	K8	K7	K6	K5	K4	K3	K2	K1

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8050h	n/a	n/a	n/a	n/a	n/a	n/a	K100	K99	K98	K97	K96	K95	K94	K93	K92	K91

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8054h	K166	K165	K164	K130	K129	K128	K127	K126	K163	K162	K161	K125	K124	K123	K122	K121

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8054h	K172	K171	K170	K150	K149	K148	K147	K146	K169	K168	K167	K145	K144	K143	K142	K141

PCB NUMBER: SCH85005000 Daughterboard #2 (Continued)**Mode: 32 BIT****LSB**

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8058h	K175	K176	K173	K174	n/a	n/a	K120	K119	K118	K117	K116	K115	K114	K113	K112	K111

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8058h	K179	K180	K177	K178	n/a	n/a	K140	K139	K138	K137	K136	K135	K134	K133	K132	K131

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
805Ch	K183	K184	K181	K182	n/a	n/a	K160	K159	K158	K157	K156	K155	K154	K153	K152	K151

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
805Ch	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

8.5 Register Map -32 Bit for (90400300-004)

PCB NUMBER: SCH85005000 Daughterboard #3

Mode: 32 BIT

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8060h	n/a	n/a	n/a	n/a	n/a	n/a	K90	K89	K88	K87	K86	K85	K84	K83	K82	K81

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8060h	n/a	n/a	n/a	n/a	n/a	n/a	K80	K79	K78	K77	K76	K75	K74	K73	K72	K71

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8064h	n/a	n/a	n/a	n/a	n/a	n/a	K70	K69	K68	K67	K66	K65	K64	K63	K62	K61

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8064h	n/a	n/a	n/a	n/a	n/a	n/a	K60	K59	K58	K57	K56	K55	K54	K53	K52	K51

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8068h	n/a	n/a	n/a	n/a	n/a	n/a	K50	K49	K48	K47	K46	K45	K44	K43	K42	K41

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8068h	n/a	n/a	n/a	n/a	n/a	n/a	K40	K39	K38	K37	K36	K35	K34	K33	K32	K31

PCB NUMBER: SCH85005000 Daughterboard #3 (Continued)**Mode: 32 BIT****LSB**

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
806Ch	n/a	n/a	n/a	n/a	n/a	n/a	K30	K29	K28	K27	K26	K25	K24	K23	K22	K21

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
806Ch	n/a	n/a	n/a	n/a	n/a	n/a	K20	K19	K18	K17	K16	K15	K14	K13	K12	K11

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8070h	n/a	n/a	n/a	n/a	n/a	n/a	K10	K9	K8	K7	K6	K5	K4	K3	K2	K1

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8070h	n/a	n/a	n/a	n/a	n/a	n/a	K100	K99	K98	K97	K96	K95	K94	K93	K92	K91

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8074h	K166	K165	K164	K130	K129	K128	K127	K126	K163	K162	K161	K125	K124	K123	K122	K121

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8074h	K172	K171	K170	K150	K149	K148	K147	K146	K169	K168	K167	K145	K144	K143	K142	K141

PCB NUMBER: SCH85005000 Daughterboard #3 (Continued)**Mode: 32 BIT****LSB**

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8078h	K175	K176	K173	K174	n/a	n/a	K120	K119	K118	K117	K116	K115	K114	K113	K112	K111

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
8078h	K179	K180	K177	K178	n/a	n/a	K140	K139	K138	K137	K136	K135	K134	K133	K132	K131

LSB

REG	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
807Ch	K183	K184	K181	K182	n/a	n/a	K160	K159	K158	K157	K156	K155	K154	K153	K152	K151

MSB

REG	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
807Ch	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

8.6 Register Description 32 Bit

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3

REGISTER: 8020h

MODE: 32 bit,, Daughterboard #1

REGISTER: 8040h

MODE: 32 bit,, Daughterboard #2

REGISTER: 8060h

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	Pin 3	J 22	K81	LF ISOLATION
1	Pin 3	J 23	K82	LF ISOLATION
2	Pin 3	J 24	K83	LF ISOLATION
3	Pin 3	J 25	K84	LF ISOLATION
4	Pin 3	J 26	K85	LF ISOLATION
5	Pin 7	J 22	K86	LF ISOLATION
6	Pin 7	J 23	K87	LF ISOLATION
7	Pin 7	J 24	K88	LF ISOLATION
8	Pin 7	J 25	K89	LF ISOLATION
9	Pin 7	J 26	K90	LF ISOLATION
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8020h

MODE: 32 bit,, Daughterboard #1

REGISTER: 8040h

MODE: 32 bit,, Daughterboard #2

REGISTER: 8060h

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	J 12-1	K71	U 101
17	INST. BUS 2	J 12-1	K72	U 101
18	INST. BUS 3	J 12-1	K73	U 101
19	INST. BUS 4	J 12-1	K74	U 101
20	INST. BUS 5	J 12-1	K75	U 101
21	INST. BUS 6	J 12-1	K76	U 101
22	INST. BUS 7	J 12-1	K77	U 101
23	INST. BUS 8	J 12-1	K78	U 101
24	INST. BUS 9	J 12-1	K79	U 101
25	INST. BUS 10	J 12-1	K80	U 101
26	Not Used	-	-	
27	Not Used	-	-	
28	Not Used	-	-	
29	Not Used	-	-	
30	Not Used	-	-	
31	Not Used	-	-	

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3

REGISTER: 8024h

MODE: 32 bit,, Daughterboard #1

REGISTER: 8044h

MODE: 32 bit,, Daughterboard #2

REGISTER: 8064h

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-3	K61	U 102
1	INST. BUS 2	J 12-3	K62	U 102
2	INST. BUS 3	J 12-3	K63	U 102
3	INST. BUS 4	J 12-3	K64	U 102
4	INST. BUS 5	J 12-3	K65	U 102
5	INST. BUS 6	J 12-3	K66	U 102
6	INST. BUS 7	J 12-3	K67	U 102
7	INST. BUS 8	J 12-3	K68	U 102
8	INST. BUS 9	J 12-3	K69	U 102
9	INST. BUS 10	J 12-3	K70	U 102
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8024h

MODE: 32 bit,, Daughterboard #1

REGISTER: 8044h

MODE: 32 bit,, Daughterboard #2

REGISTER: 8064h

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	J 12-5	K51	U 103
17	INST. BUS 2	J 12-5	K52	U 103
18	INST. BUS 3	J 12-5	K53	U 103
19	INST. BUS 4	J 12-5	K54	U 103
20	INST. BUS 5	J 12-5	K55	U 103
21	INST. BUS 6	J 12-5	K56	U 103
22	INST. BUS 7	J 12-5	K57	U 103
23	INST. BUS 8	J 12-5	K58	U 103
24	INST. BUS 9	J 12-5	K59	U 103
25	INST. BUS 10	J 12-5	K60	U 103
26	Not Used	-	-	
27	Not Used	-	-	
28	Not Used	-	-	
29	Not Used	-	-	
30	Not Used	-	-	
31	Not Used	-	-	

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3

REGISTER: 8028h

MODE: 32 bit,, Daughterboard #1

REGISTER: 8048h

MODE: 32 bit,, Daughterboard #2

REGISTER: 8068h

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-7	K41	U 104
1	INST. BUS 2	J 12-7	K42	U 104
2	INST. BUS 3	J 12-7	K43	U 104
3	INST. BUS 4	J 12-7	K44	U 104
4	INST. BUS 5	J 12-7	K45	U 104
5	INST. BUS 6	J 12-7	K46	U 104
6	INST. BUS 7	J 12-7	K47	U 104
7	INST. BUS 8	J 12-7	K48	U 104
8	INST. BUS 9	J 12-7	K49	U 104
9	INST. BUS 10	J 12-7	K50	U 104
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8028h

MODE: 32 bit,, Daughterboard #1

REGISTER: 8048h

MODE: 32 bit,, Daughterboard #2

REGISTER: 8068h

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	J 12-9	K31	U 105
17	INST. BUS 2	J 12-9	K32	U 105
18	INST. BUS 3	J 12-9	K33	U 105
19	INST. BUS 4	J 12-9	K34	U 105
20	INST. BUS 5	J 12-9	K35	U 105
21	INST. BUS 6	J 12-9	K36	U 105
22	INST. BUS 7	J 12-9	K37	U 105
23	INST. BUS 8	J 12-9	K38	U 105
24	INST. BUS 9	J 12-9	K39	U 105
25	INST. BUS 10	J 12-9	K40	U 105
26	Not Used	-	-	
27	Not Used	-	-	
28	Not Used	-	-	
29	Not Used	-	-	
30	Not Used	-	-	
31	Not Used	-	-	

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3

REGISTER: 802Ch

MODE: 32 bit,, Daughterboard #1

REGISTER: 804Ch

MODE: 32 bit,, Daughterboard #2

REGISTER: 806Ch

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-11	K21	U 106
1	INST. BUS 2	J 12-11	K22	U 106
2	INST. BUS 3	J 12-11	K23	U 106
3	INST. BUS 4	J 12-11	K24	U 106
4	INST. BUS 5	J 12-11	K25	U 106
5	INST. BUS 6	J 12-11	K26	U 106
6	INST. BUS 7	J 12-11	K27	U 106
7	INST. BUS 8	J 12-11	K28	U 106
8	INST. BUS 9	J 12-11	K29	U 106
9	INST. BUS 10	J 12-11	K30	U 106
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 802Ch

MODE: 32 bit,, Daughterboard #1

REGISTER: 804Ch

MODE: 32 bit,, Daughterboard #2

REGISTER: 806Ch

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	J 12-13	K11	U 107
17	INST. BUS 2	J 12-13	K12	U 107
18	INST. BUS 3	J 12-13	K13	U 107
19	INST. BUS 4	J 12-13	K14	U 107
20	INST. BUS 5	J 12-13	K15	U 107
21	INST. BUS 6	J 12-13	K16	U 107
22	INST. BUS 7	J 12-13	K17	U 107
23	INST. BUS 8	J 12-13	K18	U 107
24	INST. BUS 9	J 12-13	K19	U 107
25	INST. BUS 10	J 12-13	K20	U 107
26	Not Used	-	-	
27	Not Used	-	-	
28	Not Used	-	-	
29	Not Used	-	-	
30	Not Used	-	-	
31	Not Used	-	-	

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3

REGISTER: 8030h

MODE: 32 bit,, Daughterboard #1

REGISTER: 8050h

MODE: 32 bit,, Daughterboard #2

REGISTER: 8070h

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-15	K1	U 108
1	INST. BUS 2	J 12-15	K2	U 108
2	INST. BUS 3	J 12-15	K3	U 108
3	INST. BUS 4	J 12-15	K4	U 108
4	INST. BUS 5	J 12-15	K5	U 108
5	INST. BUS 6	J 12-15	K6	U 108
6	INST. BUS 7	J 12-15	K7	U 108
7	INST. BUS 8	J 12-15	K8	U 108
8	INST. BUS 9	J 12-15	K9	U 108
9	INST. BUS 10	J 12-15	K10	U 108
10	Not Used	-	-	
11	Not Used	-	-	
12	Not Used	-	-	
13	Not Used	-	-	
14	Not Used	-	-	
15	Not Used	-	-	

REGISTER: 8030h

MODE: 32 bit,, Daughterboard #1

REGISTER: 8050h

MODE: 32 bit,, Daughterboard #2

REGISTER: 8070h

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	PIN 4	J 22	K91	HF ISOLATION
17	PIN 4	J 23	K92	HF ISOLATION
18	PIN 4	J 24	K93	HF ISOLATION
19	PIN 4	J 25	K94	HF ISOLATION
20	PIN 4	J 26	K95	HF ISOLATION
21	PIN 8	J 22	K96	HF ISOLATION
22	PIN 8	J 23	K97	HF ISOLATION
23	PIN 8	J 24	K98	HF ISOLATION
24	PIN 8	J 25	K99	HF ISOLATION
25	PIN 8	J 26	K100	HF ISOLATION
26	Not Used	-	-	
27	Not Used	-	-	
28	Not Used	-	-	
29	Not Used	-	-	
30	Not Used	-	-	
31	Not Used	-	-	

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3

REGISTER: 8034h

MODE: 32 bit,, Daughterboard #1

REGISTER: 8054h

MODE: 32 bit,, Daughterboard #2

REGISTER: 8074h

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	J 12-19	K121	LOAD GROUP 1
1	INST. BUS 2	J 12-19	K122	LOAD GROUP 1
2	INST. BUS 3	J 12-19	K123	LOAD GROUP 1
3	INST. BUS 4	J 12-19	K124	LOAD GROUP 1
4	INST. BUS 5	J 12-19	K125	LOAD GROUP 1
5	LOAD R5	-	K161	LOAD GROUP 1
6	LOAD R6	-	K162	LOAD GROUP 1
7	LOAD R7	-	K163	LOAD GROUP 1
8	INST. BUS 6	-	K126	LOAD GROUP 1
9	INST. BUS 7	-	K127	LOAD GROUP 1
10	INST. BUS 8	-	K128	LOAD GROUP 1
11	INST. BUS 9	-	K129	LOAD GROUP 1
12	INST. BUS 10	-	K130	LOAD GROUP 1
13	LOAD R8	-	K164	LOAD GROUP 1
14	LOAD R9	-	K165	LOAD GROUP 1
15	LOAD R10	-	K166	LOAD GROUP 1

REGISTER: 8034h

MODE: 32 bit,, Daughterboard #1

REGISTER: 8054h

MODE: 32 bit,, Daughterboard #2

REGISTER: 8074h

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	J 12-19	K141	LOAD GROUP 2
17	INST. BUS 2	J 12-19	K142	LOAD GROUP 2
18	INST. BUS 3	J 12-19	K143	LOAD GROUP 2
19	INST. BUS 4	J 12-19	K144	LOAD GROUP 2
20	INST. BUS 5	J 12-19	K145	LOAD GROUP 2
21	LOAD R11	-	K167	LOAD GROUP 2
22	LOAD R12	-	K168	LOAD GROUP 2
23	LOAD R13	-	K169	LOAD GROUP 2
24	INST. BUS 6	-	K146	LOAD GROUP 2
25	INST. BUS 7	-	K147	LOAD GROUP 2
26	INST. BUS 8	-	K148	LOAD GROUP 2
27	INST. BUS 9	-	K149	LOAD GROUP 2
28	INST. BUS 10	-	K150	LOAD GROUP 2
29	LOAD R14	-	K170	LOAD GROUP 2
30	LOAD R15	-	K171	LOAD GROUP 2
31	LOAD R16	-	K172	LOAD GROUP 2

PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3

REGISTER: 8038h

MODE: 32 bit,, Daughterboard #1

REGISTER: 8058h

MODE: 32 bit,, Daughterboard #2

REGISTER: 8078h

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	-	K111	HF CHAN 1
1	INST. BUS 2	-	K112	HF CHAN 1
2	INST. BUS 3	-	K113	HF CHAN 1
3	INST. BUS 4	-	K114	HF CHAN 1
4	INST. BUS 5	-	K115	HF CHAN 1
5	INST. BUS 6	-	K116	HF CHAN 1
6	INST. BUS 7	-	K117	HF CHAN 1
7	INST. BUS 8	-	K118	HF CHAN 1
8	INST. BUS 9	-	K119	HF CHAN 1
9	INST. BUS 10	-	K120	HF CHAN 1
10	Not Used	-	-	
11	Not Used	-	-	
12	4 POLE STAR 1A	J 13	K174	HF I/O 1A
13	4 POLE STAR 1B	J 14	K173	HF I/O 1B
14	4 POLE STAR 1C	J 15	K176	HF I/O 1C
15	4 POLE STAR 1D	J 15	K175	Isolation to 3 x 10 Matrix

REGISTER: 8038h

MODE: 32 bit,, Daughterboard #1

REGISTER: 8058h

MODE: 32 bit,, Daughterboard #2

REGISTER: 8078h

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
16	INST. BUS 1	-	K131	HF CHAN 2
17	INST. BUS 2	-	K132	HF CHAN 2
18	INST. BUS 3	-	K133	HF CHAN 2
19	INST. BUS 4	-	K134	HF CHAN 2
20	INST. BUS 5	-	K135	HF CHAN 2
21	INST. BUS 6	-	K136	HF CHAN 2
22	INST. BUS 7	-	K137	HF CHAN 2
23	INST. BUS 8	-	K138	HF CHAN 2
24	INST. BUS 9	-	K139	HF CHAN 2
25	INST. BUS 10	-	K130	HF CHAN 2
26	Not Used	-	-	
27	Not Used	-	-	
28	4 POLE STAR 2A	J 16	K178	HF I/O 2A
29	4 POLE STAR 2B	J 17	K177	HF I/O 2B
30	4 POLE STAR 2C	J 18	K180	HF I/O 2C

31	4 POLE STAR 2D	J 18	K179	Isolation to 3 x 10 Matrix
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PCB NUMBER: SCH85005000 Daughterboard #1, #2 and #3

REGISTER: 803Ch

MODE: 32 bit,, Daughterboard #1

REGISTER: 805Ch

MODE: 32 bit,, Daughterboard #2

REGISTER: 807Ch

MODE: 32 bit,, Daughterboard #3

FUNCTION: UNIVERSAL I/O

BIT	FUNCTION	CONNECTION	RELAY	COMMENT
0	INST. BUS 1	-	K151	HF CHAN 3
1	INST. BUS 2	-	K152	HF CHAN 3
2	INST. BUS 3	-	K153	HF CHAN 3
3	INST. BUS 4	-	K154	HF CHAN 3
4	INST. BUS 5	-	K155	HF CHAN 3
5	INST. BUS 6	-	K156	HF CHAN 3
6	INST. BUS 7	-	K157	HF CHAN 3
7	INST. BUS 8	-	K158	HF CHAN 3
8	INST. BUS 9	-	K159	HF CHAN 3
9	INST. BUS 10	-	K160	HF CHAN 3
10	Not Used	-	-	
11	Not Used	-	-	
12	4 POLE STAR 3A	J 19	K182	HF I/O 3A
13	4 POLE STAR 3B	J 20	K181	HF I/O 3B
14	4 POLE STAR 3C	J 21	K184	HF I/O 3C
15	4 POLE STAR 3D	J 21	K183	Isolation to 3 x 10 Matrix