

SCORPIUS 980NH PLUS / 980H KEYBOARD

SPECIFICATIONS

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V2.0

WARNING

Note : This equipment has been tested and found to comply with the limits for a Class B device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and , if not installed and used in accordance with the instructions, may cause harmful interference to radio communications however , there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on , the user is encouraged to try to correct the interference by one or more of the following measures:

- £ Reorient or relocate the receiving antenna.
- £ Increase the separation between the equipment and receiver.
- £ Connect the equipment into an outlet on a circuit different from that to which the receiver in connected.
- £ Consult the dealer or an experienced radio / TV technician for technician for help.

Notice:

Changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operaton is Subject to the following two conditions : (1) this device may not cause Harmful interference, and (2) this device must accept any interference

C SCOPE

The purpose of this specification is to define the generic operational, Environmental, electrical and mechanical characteristics of the "**Scorplus 980NH PLUS / 980H**" rubber mechanical keyswitch keyboard.

C GENERAL

Description

The Scorplus 980NH plus /980H keyboard has an enhanced slim design and can work with any USB compatible computer.

Utilizing the latest in rubber mechanical key switch technology, the Scorplus 980NH plus offers durability and style that will enhance any system for years to come. 23 Extra rubber buttons let keyboard link more closer with PC, touch one button to make some functions work immediately. 10 of 23 buttons can be programmed by end-users. 3 ACPI

Keys added for easy using under Windows 98.

Features

- with key standard layouts.
- Scorplus 980NH plus with 23 extra rubber buttons high quality rubber mechanical key switches.
- Built two USB Bus-power hub ports.
- USB specification 1.1 compatible.
- Hub over-current protection design.
- Max 100 mA current supply for each hub port.
- Adjustable tilt mechanism.
- Tactile key stroke.
- 20,000,000 lift cycles per switch.
- Permanently attached coiled cord

Appearance / Durability

This keyboard is to be used in home and office environments . Therefore, the quality of appearance and touch are of great importance. Because of the environmental severity of home and office place, longevity, durability and resistance to contamination are also of major concern. Good engineering design practices shall be followed throughout, both mechanically and electrically.

Package Contents

S-980NH-• Keyboard (USB +Hub)

- Wrist support Attachment
- CD-ROM driver (for software installation)
- User Manual

S-980H --• Keyboard (USB +Hub)

- Wrist Support Attachment (Plus model only)

Definitions

This keyboard is to be used in home and office environments, therefore, the quality of appearance and touch are of great importance. Because of the environmental severity of home and office place, longevity, durability and resistance to contamination are also of major concern. Good engineering design practices shall be followed throughout, both mechanically and electrically

The term “keyboard” when used in this document defines a PC board with 104 /105 /109 / 107 / 109 key switches, 3 ACPI keys and 20 rubber buttons for Scorplus 980NH USB which is fully assembled and housed in an enclosure with an interconnecting cable. The complete assembly shall be tested and ready for use when plugged into a host device.

C ENVIRONMENTAL SPECIFICATIONS

Temperature

Operating

The operating temperature range shall be from 0°C to 50°C (32°F to 122°F). There shall be an operational temperature test of a single cycle, ambient, cold, hot, ambient, with a minimum of a 15 minute dwell (pause) for every 15°C increment of change. The rate of temperature change shall not exceed 20°C per hour. The keyboard will operate normally throughout the cycle requiring no operator intervention or corrective actions, except to cause normal movement.

Non-Operating

The non-operating temperature range shall be from -10°C to 60°C (14°F to 140°F). There shall be a thermal shock test of five(5) cycles from -15°C to 55°C holding for 30 minutes at each extreme. The rate of temperature change shall not exceed 25°C per hour. Normal keyboard operation will be verified before and after the thermal shock test.

Humidity

Operating

The operating relative humidity range shall be from 10% to 85% non condensing ambient temperature.

Non-Operating

The non-operating relative humidity range shall be from 10% to 95% non-Condensing. The keyboard shall withstand an environment varying between 25°C and 55°C 95% relative humidity, non condensing, for a period of 96 hours.

Vibration Test (*Packaged for shipment*)

Operating

With the system installed on a shock platform and operating the test software, a vibration with a displacement of 0.02" shall be exerted over the frequency range of 5 Hz to 22 Hz and an acceleration of 0.5 g over the frequency range of 22 Hz to 500 Hz on each of the three orthogonal axes. This shall be sustained for approximately 13 minutes per axis only.

Non-operating

With the system installed on a vibration platform and switched OFF, a vibration with a displacement of 0.1" shall be exerted over the frequency range of 5 Hz to 22 Hz and an acceleration of 0.75 g over the frequency range of 22 Hz to 500 Hz on each of the three orthogonal axes. This test shall be sustained for approximately 13 minutes per axis.

Shock Test

Operating

With the system installed on a shock platform and operating the test software, a shock pulse of 5 G half sine for a duration of 15 ms shall be exerted on each of the 3 orthogonal axes. The test shall be repeated 3 times for the vertical axes only.

Non-operating

With the system installed on a shock platform and switched OFF , a pulse of 10 G half sine for a duration of 15 ms shall be exerted on each of the 3 orthogonal axes. The test shall be repeated 5 time.

Drop Test

- Drop Height: 91.5cm
- Sequence : 1 corner, 3 edges, 6 faces

Related Documents

The keyboard shell meet the requirements of FCC Part 15, Sub-part J, for Class B computing devices

ESD

- Test Condition : 3.5KV no data loss, 5kv no component damage
- Test Procedure : IEC 801-2

Contaminants

Dust

The keyboard has been designed to be unaffected by the normal accumulation of airborne dust as found in the home or office place. This includes non-metallic dust and grime as might be carried into the work place or home from outside sources.

Gases

The keyboard shall not be corroded or defaced or otherwise damaged by atmospheres acceptable to OSHA standards for the home and work place. This includes normal amounts of oxygen and ozone.

C 1 MECHANICAL SPECIFICATIONS

Materials

General

- **Keyboard Bases, Cover and Keytop :**
Injection molded ABS Thermoplastic rates UL 94HB or better.
- **PC Board :** Paper Phenolic. Rated UL-94V0.tter.

Interconnect Cable

- **Jacket :** Low durometer PVC, 5mm to 10%mm nominal diameter.
- **Conductor Insulation :** PVC, Polypropylene or Teflon.

Standard Connector (4 Pin USB-A plug)

- **Connector Shell :** Shielded, plastic plated , with metallic contact dimples
- **Insulator:** Thermoplastic
- **Contacts :** Tin flash plated with a minimum of 15 micro-inches in contact area.
- **Flex and Strain Relief:** PVC.
- **Backshell :** Molded PVC.

Key Switch

- **Type:** Tactile feeling rubber membrane.
- **Membrane Key Travel:** $3.5\text{ mm} \pm 0.2\text{ mm}$
- **Contact Bounce:** Switch shall have electronically debounced contact time of 5 ms (max)
- **Operation Force :** 55g + 10 g
- **Mechanical Life :** 20 million cycles

Weight

The weight shall be 1kg

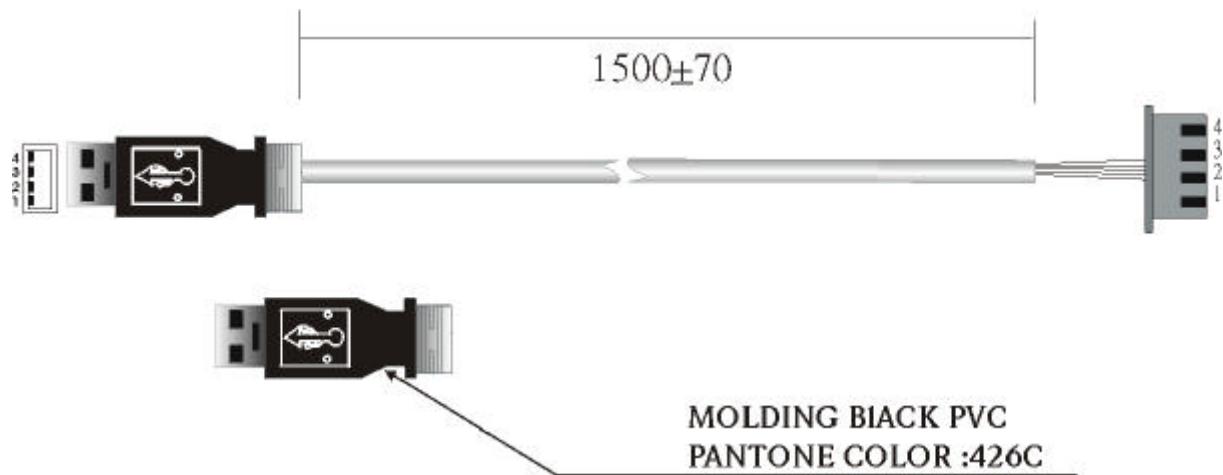
Standard Colors

White (Color No : 3361)

Dimensions

The maximum dimensions of the keyboard enclosure will not exceed 475mm in length, 172mm in width and 32mm in height.

Cable Specification



C ELECTRICAL SPECIFICATIONS

Components

All component will be of the highest commercial grade and shall be mounted according to IPC and recommended vendor practices. Standard values are to be adhered to at all times . Single sources, unusual values or designs outside specified component ratings shall be avoided.

PC Boards

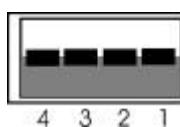
PC Board shall be made of UL (Underwriters Laboratories) rated material, 94V-0 or better as per UL 478.

Design Practice.

All components shall perform well within their design ratings. Good IC design with respect to unused inputs and number of outputs shall be observed. Trace width and spacing shall be conservative wherever possible and shall meet IPC minimums at all times. Bypass capacitors shall be used liberally and some on-board filtering is expected when possible . Power consumption shall be minimized.

Connector Pin Assignments

The standard connector pin out for USB-A plug is as follows :
USB

DESCRIPTION	SIGNAL	PIN	CONNECTOR
Power Supply	+5Vdc Signal	1	
Data -	D-	2	
Data +	D+	3	
Ground	GND	4	

Power Requirements

- Current Consumption : 20mA
- Operation Voltage : 5Vdc \pm 5%

Rubber / Membrane

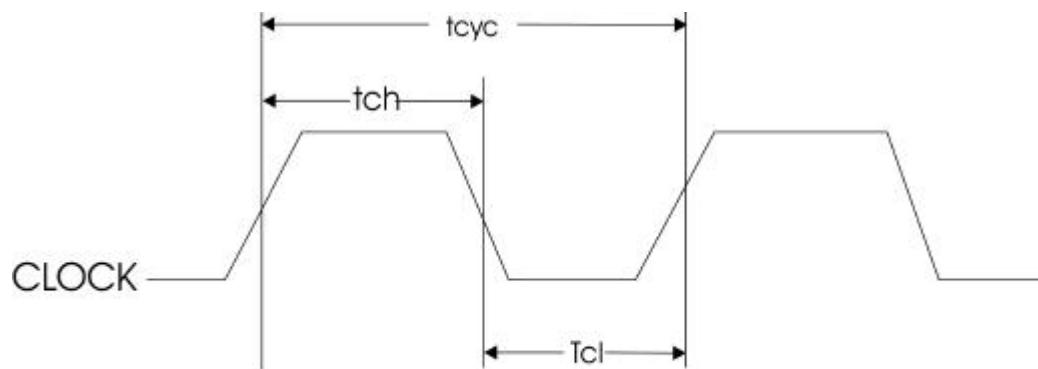
- Rubber Dome Contact Resister : 100 Ω (max)

- Membrane Contact Resister : 100 Ω [
- Membrane Open Resister 10M Ω [

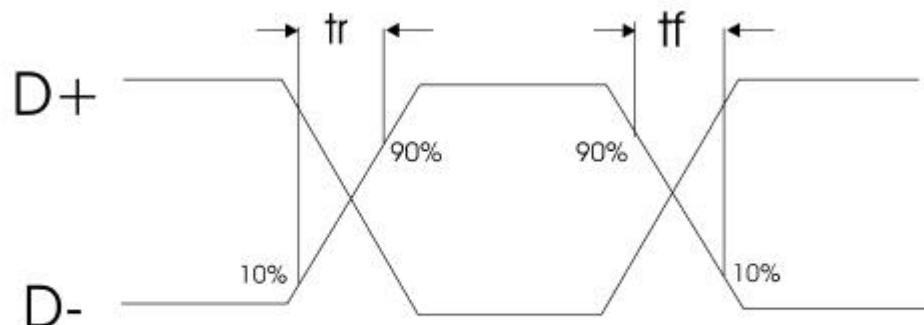
Interface

- Serial data transfer
- Timing detail:

Parameter	Description	Min	Max	Unit
tcyc	Input click cycle time	165.0	168.3	ns
tch	Clock high time	0.45tcyc	-	ns
tcl	Clock low time	0.45tcyc	-	ns
tr	Transition rise time	75	300	ns
tf	Transition fall time	75	300	ns



Clock Timing



USB Data signal Timing

USB CODE SET TABLE

Appendix a: USB Keyboard / keypad Page (0 X 07)

This section is the Usage Page for key codes to be used in implementing a USB keyboard A Boot Keyboard (84-,101-or 104-key) bow

Note: Due to the variation of keyboards from language to language, it is not feasible to specify exact key mappings for every language. Where this list is not specific for a key function in a language , the closest equivalent key position should be used , so that a keyboard may be modified for a different language by simply printing different keycaps, One example is the Y key on a North American keyboard .In Germany , This is typically Z Rather Than Changing the keyboard firmware to put the Z Usage into that place in the descriptor list, the vendor should use the Y Usage on both the North American and German keyboards. This continue to be the existing practice In the industry, in order to minimize the number of changes to the electronics to accommodate other languages.

Usage Index (dec)	Usage Index (hex)	Usage	Ref: typical AT-101 position	PC-AT	Mac	UNIX	Boot
0	00	Reserved(110 event indicated) ⁹	N/A	£ 3/4	£ 3/4	£ 3/4	84/101/104
1	01	Keyboard ErrorRollOver ⁹	N/A	£ 3/4	£ 3/4	£ 3/4	84/101/104
2	02	Keyboard PSDTFail ⁹	N/A	£ 3/4	£ 3/4	£ 3/4	84/101/104
3	03	Keyboard ErrorUndefined ⁹	N/A	£ 3/4	£ 3/4	£ 3/4	84/101/104
4	04	Keyboard a and A ⁴	31	£ 3/4	£ 3/4	£ 3/4	84/101/104
5	05	Keyboard b and B	50	£ 3/4	£ 3/4	£ 3/4	84/101/104
6	06	Keyboard c and C ⁴	48	£ 3/4	£ 3/4	£ 3/4	84/101/104
7	07	Keyboard d and D	33	£ 3/4	£ 3/4	£ 3/4	84/101/104
8	08	Keyboard e and E	19	£ 3/4	£ 3/4	£ 3/4	84/101/104
9	09	Keyboard f and F	34	£ 3/4	£ 3/4	£ 3/4	84/101/104
10	0A	Keyboard g and G	35	£ 3/4	£ 3/4	£ 3/4	84/101/104
11	0B	Keyboard h and H	36	£ 3/4	£ 3/4	£ 3/4	84/101/104
12	0C	Keyboard i and I	24	£ 3/4	£ 3/4	£ 3/4	84/101/104
13	0D	Keyboard j and J	37	£ 3/4	£ 3/4	£ 3/4	84/101/104
14	0E	Keyboard k and K	38	£ 3/4	£ 3/4	£ 3/4	84/101/104
15	0F	Keyboard l and L	39	£ 3/4	£ 3/4	£ 3/4	84/101/104
16	10	Keyboard m and M ⁴	52	£ 3/4	£ 3/4	£ 3/4	84/101/104
17	11	Keyboard n and N	51	£ 3/4	£ 3/4	£ 3/4	84/101/104
18	12	Keyboard o and O ⁴	25	£ 3/4	£ 3/4	£ 3/4	84/101/104
19	13	Keyboard p and P ⁴	26	£ 3/4	£ 3/4	£ 3/4	84/101/104
20	14	Keyboard q and Q ⁴	17	£ 3/4	£ 3/4	£ 3/4	84/101/104
21	15	Keyboard r and R	20	£ 3/4	£ 3/4	£ 3/4	84/101/104
22	16	Keyboard s and S ⁴	32	£ 3/4	£ 3/4	£ 3/4	84/101/104
23	17	Keyboard t and T	21	£ 3/4	£ 3/4	£ 3/4	84/101/104
24	18	Keyboard u and U	23	£ 3/4	£ 3/4	£ 3/4	84/101/104
25	19	Keyboard v and V	49	£ 3/4	£ 3/4	£ 3/4	84/101/104

Usage Index (dec)	Usage Index (hex)	Usage	Ref: typical AT-101 position	PC-AT	Mac	UNIX	Boot
26	1A	Keyboard w and W ⁴	18	£ 3/4	£ 3/4	£ 3/4	84/101/104
27	1B	Keyboard x and X ⁴	47	£ 3/4	£ 3/4	£ 3/4	84/101/104
28	1C	Keyboard y and y ⁴	22	£ 3/4	£ 3/4	£ 3/4	84/101/104
29	1D	Keyboard z and Z ⁴	46	£ 3/4	£ 3/4	£ 3/4	84/101/104
30	1E	Keyboard 1 and ! ⁴	2	£ 3/4	£ 3/4	£ 3/4	84/101/104
31	1F	Keyboard 2 and @ ⁴	3	£ 3/4	£ 3/4	£ 3/4	84/101/104
32	20	Keyboard 3 and # ⁴	4	£ 3/4	£ 3/4	£ 3/4	84/101/104
33	21	Keyboard 4 and \$ ⁴	5	£ 3/4	£ 3/4	£ 3/4	84/101/104
34	22	Keyboard 5 and % ⁴	6	£ 3/4	£ 3/4	£ 3/4	84/101/104
35	23	Keyboard 6 and ^ ⁴	7	£ 3/4	£ 3/4	£ 3/4	84/101/104
36	24	Keyboard 7 and & ⁴	8	£ 3/4	£ 3/4	£ 3/4	84/101/104
37	25	Keyboard 8 and * ⁴	9	£ 3/4	£ 3/4	£ 3/4	84/101/104
38	26	Keyboard 9 and (⁴	10	£ 3/4	£ 3/4	£ 3/4	84/101/104
39	27	Keyboard 0 and) ⁴	11	£ 3/4	£ 3/4	£ 3/4	84/101/104
40	28	Keyboard Return(ENTER) ⁵	43	£ 3/4	£ 3/4	£ 3/4	84/101/104
41	29	Keyboard ESCAPE	110	£ 3/4	£ 3/4	£ 3/4	84/101/104
42	2A	Keyboard DELETE(Backspace) ¹³	15	£ 3/4	£ 3/4	£ 3/4	84/101/104
43	2B	Keyboard Tab	16	£ 3/4	£ 3/4	£ 3/4	84/101/104
44	2C	Keyboard spacebar	61	£ 3/4	£ 3/4	£ 3/4	84/101/104
45	2D	Keyboard - and (underscore)	12	£ 3/4	£ 3/4	£ 3/4	84/101/104
46	2E	Keyboard =and + ⁴	13	£ 3/4	£ 3/4	£ 3/4	84/101/104
47	2F	Keyboard [and { ⁴	27	£ 3/4	£ 3/4	£ 3/4	84/101/104
48	30	Keyboard] and } ⁴	28	£ 3/4	£ 3/4	£ 3/4	84/101/104
49	31	Keyboard \ and l	29	£ 3/4	£ 3/4	£ 3/4	84/101/104
50	32	Keyboard Non-US# and ~ ²	42	£ 3/4	£ 3/4	£ 3/4	84/101/104
51	33	Keyboard ⁴	40	£ 3/4	£ 3/4	£ 3/4	84/101/104
52	34	Keyboard ‘ and ‘‘ ⁴	41	£ 3/4	£ 3/4	£ 3/4	84/101/104
53	35	Keyboard Grave Accent and Tilde ⁴	1	£ 3/4	£ 3/4	£ 3/4	84/101/104
54	36	Keyboard , and < ⁴	53	£ 3/4	£ 3/4	£ 3/4	84/101/104
55	37	Keyboard . and > ⁴	54	£ 3/4	£ 3/4	£ 3/4	84/101/104
56	38	Keyboard / and ? ⁴	55	£ 3/4	£ 3/4	£ 3/4	84/101/104
57	39	Keyboard CapsLock ¹¹	30	£ 3/4	£ 3/4	£ 3/4	84/101/104
58	3A	Keyboard F1	112	£ 3/4	£ 3/4	£ 3/4	84/101/104
59	3B	Keyboard F2	113	£ 3/4	£ 3/4	£ 3/4	84/101/104
60	3C	Keyboard F3	114	£ 3/4	£ 3/4	£ 3/4	84/101/104
61	3D	Keyboard F4	115	£ 3/4	£ 3/4	£ 3/4	84/101/104
62	3E	Keyboard F5	116	£ 3/4	£ 3/4	£ 3/4	84/101/104
63	3F	Keyboard F6	117				

Usage Index (dec)	Usage Index (hex)	Usage	Ref: typical AT-101 position	PC-AT	Mac	UNIX	Boot
64	40	Keyboard F7	118	£ 3/4	£ 3/4	£ 3/4	84/101/104
65	41	Keyboard F8	119	£ 3/4	£ 3/4	£ 3/4	84/101/104
66	42	Keyboard F9	120	£ 3/4	£ 3/4	£ 3/4	84/101/104
67	43	Keyboard F10	121	£ 3/4	£ 3/4	£ 3/4	84/101/104
68	44	Keyboard F11	122	£ 3/4	£ 3/4	£ 3/4	101/104
69	45	Keyboard F12	123	£ 3/4	£ 3/4	£ 3/4	101/104
70	46	Keyboard PrintScreen ¹	124	£ 3/4	£ 3/4	£ 3/4	101/104
71	47	Keyboard ScrollLock ¹¹	125	£ 3/4	£ 3/4	£ 3/4	84/101/104
72	48	Keyboard Pause ¹	126	£ 3/4	£ 3/4	£ 3/4	101/104
73	49	Keyboard Insert ¹	75	£ 3/4	£ 3/4	£ 3/4	101/104
74	4A	Keyboard Home ¹	80	£ 3/4	£ 3/4	£ 3/4	101/104
75	4B	Keyboard PageUp ¹	85	£ 3/4	£ 3/4	£ 3/4	101/104
76	4C	Keyboard Delete forward ¹	76	£ 3/4	£ 3/4	£ 3/4	101/104
77	4D	Keyboard End ¹	81	£ 3/4	£ 3/4	£ 3/4	101/104
78	4E	Keyboard PageDown ¹	86	£ 3/4	£ 3/4	£ 3/4	101/104
79	4F	Keyboard End ¹	89	£ 3/4	£ 3/4	£ 3/4	101/104
80	50	Keyboard PageDown ¹	79	£ 3/4	£ 3/4	£ 3/4	101/104
81	51	Keyboard rightArrow ¹	84	£ 3/4	£ 3/4	£ 3/4	101/104
82	52	Keyboard UpArrow ¹	83	£ 3/4	£ 3/4	£ 3/4	101/104
83	53	Keyboard NumLock and Clera ¹¹	90	£ 3/4	£ 3/4	£ 3/4	101/104
84	54	Keypad / ¹	95	£ 3/4	£ 3/4	£ 3/4	101/104
85	55	Keypad *	100	£ 3/4	£ 3/4	£ 3/4	84/101/104
86	56	Keypad -	105	£ 3/4	£ 3/4	£ 3/4	84/101/104
87	57	Keypad +	106	£ 3/4	£ 3/4	£ 3/4	84/101/104
88	58	Keypad ENTER5	108	£ 3/4	£ 3/4	£ 3/4	101/104
89	59	Keypad 1 and End	93	£ 3/4	£ 3/4	£ 3/4	84/101/104
90	5A	Keypad 2 and down Arrow	98	£ 3/4	£ 3/4	£ 3/4	84/101/104
91	5B	Keypad 3 and PageDn	103	£ 3/4	£ 3/4	£ 3/4	84/101/104
92	5C	Keypad 4 and left Arrow	92	£ 3/4	£ 3/4	£ 3/4	84/101/104
93	5D	Keypad 5	97	£ 3/4	£ 3/4	£ 3/4	84/101/104
94	5E	Keypad 6 and Right Arrow	102	£ 3/4	£ 3/4	£ 3/4	84/101/104
95	5F	Keypad 7 and Home	91	£ 3/4	£ 3/4	£ 3/4	84/101/104
96	60	Keypad 8 and Up Arrow	96	£ 3/4	£ 3/4	£ 3/4	84/101/104
97	61	Keypad 9 and PageUp	101	£ 3/4	£ 3/4	£ 3/4	84/101/104
98	62	Keypad 0 and Insert	99	£ 3/4	£ 3/4	£ 3/4	84/101/104
99	63	Keypad and Delete	104	£ 3/4	£ 3/4	£ 3/4	84/101/104
100	64	Keypad Non-US\and 1 ^{3,6}	45	£ 3/4	£ 3/4	£ 3/4	84/101/104
101	65	Keypad Application ¹⁰	129	£ 3/4		£ 3/4	104
102	66	Keypad Powr ⁹				£ 3/4	£ 3/4

Usage Index (dec)	Usage Index (hex)	Usage	Ref: typical AT-101 position	PC-AT	Mac	UNIX	Boot
103	67	Keypad=			£ 3/4		
104	68	Keyboard F13			£ 3/4		
105		Keyboard F14			£ 3/4		
106		Keyboard F15			£ 3/4		
107		Keyboard F16					
108		Keyboard F17					
109		Keyboard F18					
110		Keyboard F19					
111		Keyboard F20					
112		Keyboard F21					
113		Keyboard F22					
114		Keyboard F23					
115		Keyboard F24					
116		Keyboard Execute			£ 3/4		
117		Keyboard Help			£ 3/4		
118		Keyboard Menu			£ 3/4		
119		Keyboard Select			£ 3/4		
120		Keyboard Stop			£ 3/4		
121		Keyboard Again			£ 3/4		
122		Keyboard Undo			£ 3/4		
123		Keyboard Cut			£ 3/4		
124		Keyboard copy			£ 3/4		
125		Keyboard Paste			£ 3/4		
126		Keyboard find			£ 3/4		
127		Keyboard Mute			£ 3/4		
128		Keyboard Volume Up			£ 3/4		
129		Keyboard Volume Down			£ 3/4		
130		Keyboard Locking Caps Lock ¹²			£ 3/4		
131		Keyboard Locking Scroll Lock ¹²			£ 3/4		
132		Keyboard Kanji1 ¹⁵			£ 3/4		
133		Keypad Comma					
134		Keypad Equal Sign					
135		Keyboard Kanji1 ¹⁵					
136		Keyboard Kanji2 ¹⁶					
137		Keyboard Kanji3 ¹⁷					
138		Keyboard Kanji4 ¹⁸					
139		Keyboard Kanji5 ¹⁹					
140		Keyboard Kanji6 ²⁰					
141		Keyboard Kanji7 ²¹					

Footnotes

1. Usage of keys is not modified by the state of the Control, Alt, Shift or Num Lock keys. That is, a key does not send extra codes to compensate for the state of any Control, Alt, Shift or Num Lock keys.
2. Typical language mappings: US: \l Belg: 'fFrCa:<}>Dan: *Dutch: <> fren: * Ger: #' Ital: ü§ LatAm: }'] nor: , *Span: }ç Swed: ; *Swiss: \$fUK: #~.
3. **Typical language mappings: Belg<\>FrCa:<<^>>Dab:<\> Dutch: J1 [Fren:<l>Ital:<>LatAM:<>Nor:<>Span : <> Swed:<l> Swiss :<\>UK:&l Brazil: \l.**
4. Typically remapped for other languages in the host system
5. Keyboard Enter and keypad Enter generate different Usage codes
6. Typically near the Left-Shift key in AT-102 implementations
7. Example, Erase-Eaze™ key
8. Reserved for language-specific functions, such as Front End Processors and Input Method Editors
9. Reserved for typical keyboard status or keyboard errors. Sent as a member of the keyboard array. Not a physical key.
10. Microsoft ®Windows ®key for Microsoft ®95 and Compose”
11. Implemented as a non-locking key ; sent as member of an array
12. Implemented as a locking key; sent as a toggle button. Available for legacy support; however , most systems should use the non-locking version of this key
13. Backs up the cursor one position, deleting a character as it goes.
14. Deleted one character without changing position
21. Toggle Double-Byte/Single-Byte mode.
22. Undefined, available for other Front End Language Processors
23. Windowing environment key, examples are Microsoft ® Left Win key, Macintosh ® Left Apple key, Sun ® LeftMeta key
24. Windowing environment key, examples are microsoft® Right Win key, Macintosh ® Right Apple key. Sun ® Rightmeta key

Multimedia function

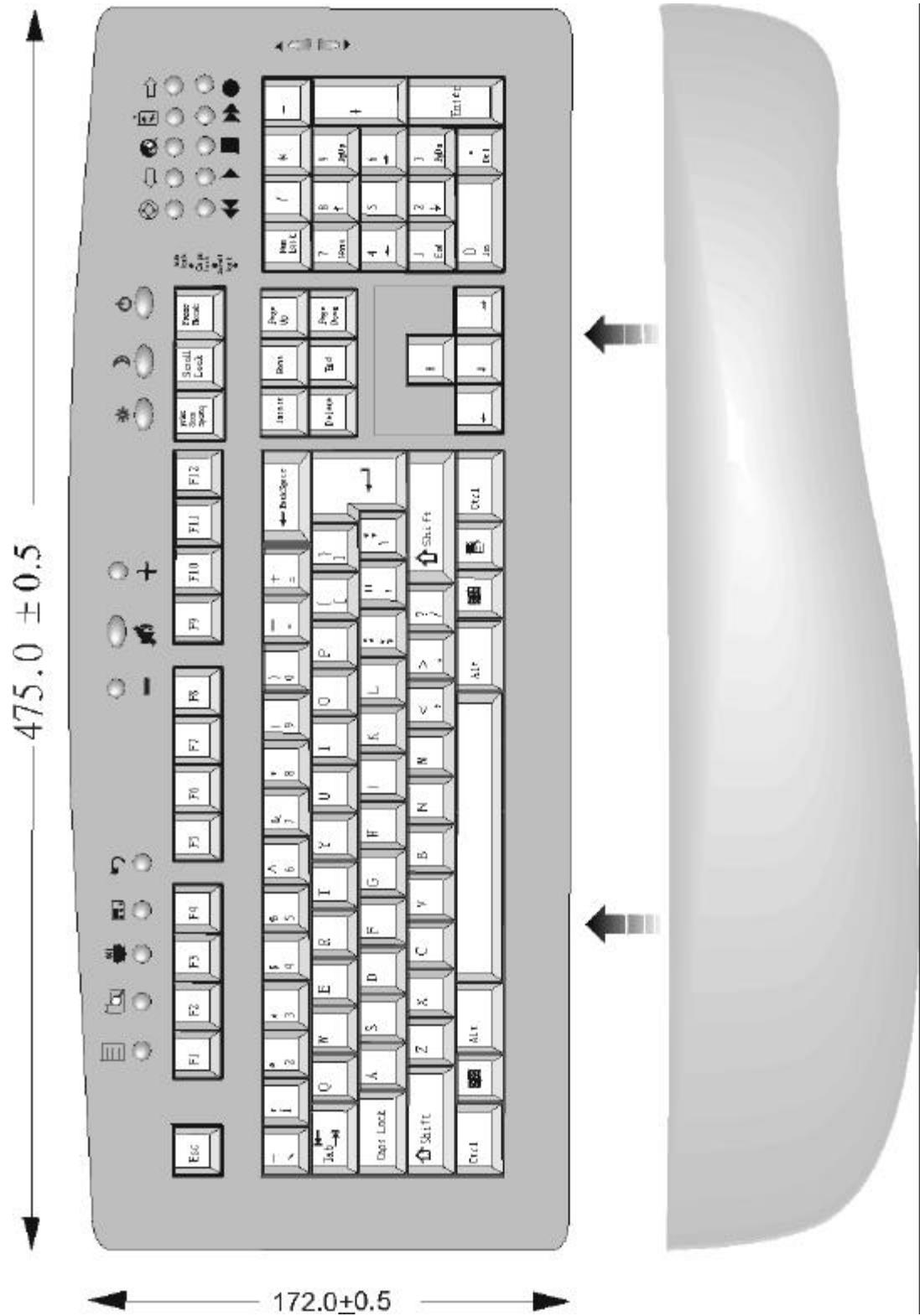
 Menu	activates the user-interface and allows users to configure 10 programmable Hot Keys to perform specific functions
 Explorer	open Windows program files
 Coffee Break	enters screen saver mode
 Calculator	brings out Calculator
 X'fer	transfer the amount of Calculator to worksheet.
 Vol up	volume increase
 Mute	volume mute
 Vol down	volume decrease
 Wake up	turn system on from sleep mode
 Sleep	turn system to Sleep mode
 Power	power off the whole system
 WWW	launches the Internet browser
 Back	back to the last page on Internet browser
 SRCH	search specific web site
 Refresh	refresh web site
 FWR	forward to the next page on Internet browser
 Rewind	instructs the CD / VCD / DVD player to the previous track
 Play/Pause	begin or pause the CD / VCD / DVD playing
 Stop	stops the current playing
 Forward	instructs the CD/VCD / DVD player to the next track
 Record	record resource from assigned source
 Scroll Up	scrolling work sheet or browser up.
 Scroll Down	scrolling work sheet or browser down.

SCORPIUS-980NA 23 hot keys

LANGUAGE LAYOUT

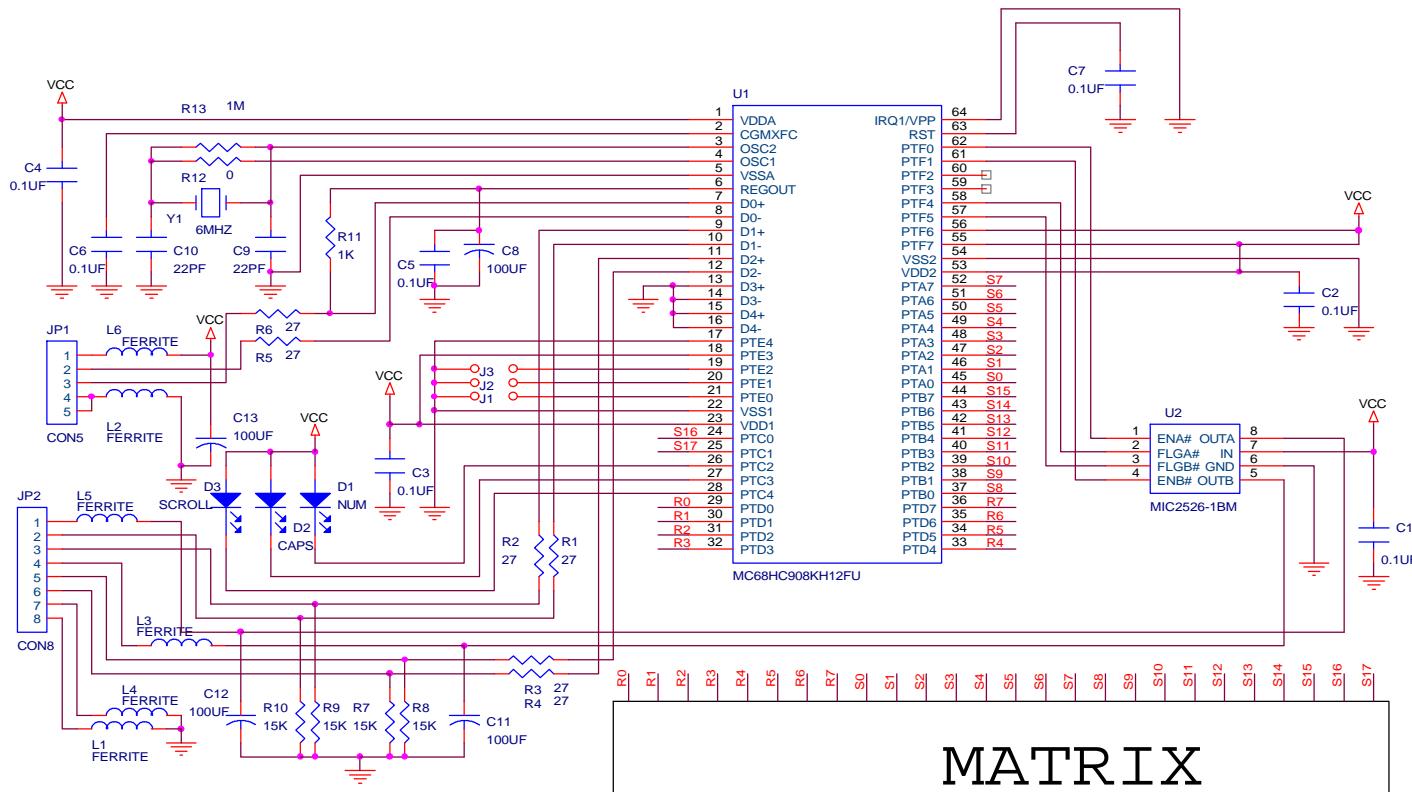


Scorpius-980H



Scorpius-980NH

ASchematic



MATRIX

Title		Rev
SC-980H		(Rev)
Size	Document Number	(Rev)
A	(Doc)	
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Universal serial Bus specification

***Receptacle Injection Molded Thermoplastic Insulator**

Material :

Minimum UL 94-V0 rated, thirty percent (30%) glass-filled polybutylene terehthalate (PBT) or polyethylene terephthalate(PET) or Natural.

Typical Colors: Black, Gray and Natural.

Flammability Characteristics: UL 94-V0 rated.

Flame Retardant Package must meet or exceed the requirements for UL, CSA, VDE, et cetera.

Oxygen Index (LOI) : Greater than 21% ASTM D2863

***Receptacle Shell Materials :**

Substrate Material: 0.3 + 0.05mm phosphor bronze, nickel silver or other copper based high strength materials.

Plating:

1.Underplate: Optional. Minimum 1.00 micrometers (40 microinches) Nickel. In addition, Manufacturer May use a copper underplate beneath the nickel.

2.Outside; Minimum 2.5 micrometers (100 microinches) Bright Tin or Bright Tin-Lead.

***Receptacle Contact Materials :**

Substrate Material: 0.3± 0.05mm minimum half-hard phosphor bronze or other the high strength copper based material.

Plating; contact are to be selectively plated.

Option

1.Undeplate: Minimum 1.25 micrometers (50 microinches) Nickel. Copper over base material is optional.

2.Mating Area: Minimum 0.05 micrometers (2 microinches) Gold over a minimum of 0.70 micrometers (28 microinches) Palladium.

3.Solder Tails: Minimum 3.8 micrometers (150 microinches) Bright Tin-Lead over the underplate.

