



ASPIRE-400 MAINTENANCE INTERFACE PANEL

QUICK REFERENCE GUIDE
(version 1.0)



Maintenance Panel Overview:

The Aspire-400 Maintenance Interface Panel (MIP) is a rack mounted unit with the ability to break out every interface available on the *Honeywell* Aspire-400 system. The unit fits into a standard 19” rack with a 3RU height. It gets powered by a built-in 24VDC power supply capable of driving 5 amps.

Equipment Part Numbers:

Description	Part Number
Aspire-400 MIP	DB10-1394-01

Incorporated Features:

Option	Included
ARINC 429 transmit	2 paralleled channels
Internal GPS	Yes
Internal compass	Yes
CEPT ports	CEPT-E1
ISDN ports	No
FX ports	No
Ethernet ports	ETH 1, ETH 2, ETH 3, ETH 4, ETH 5, ETH 11, ETH 12, WAN
USB pass-through ports	0
Console RS232 ports	AMT-700
Keyed TX disable	Yes
Front I/O connector	Yes
External LRU power input	No

User Interface Firmware:

The Maintenance Interface Panel runs using our proprietary firmware package named *Obsidian*. Consult the *Obsidian* user’s manual for specific information on using this panel’s touchscreen interface.

Default Power Button Configuration:

Power Button Name:	Function:
RLY/FAN	External power to J3 - pin 37 External power to J3 - pin 45 External power to J3 - pin 46
ANT SYS	External power to J4 - pin 4 External power to J4 - pin 5

1 Default Discrete Out Button Configuration:

Discrete Out Number:	Pin:	Name:	Function:	Icon Image	Icon State
1	J3 - pin 22	TX MUTE	“ASSERTED” = Grounded “DE-ASSERTED” = Open	WOW	Low
2	J3 - pin 14	WOW	“ASSERTED” = Grounded “DE-ASSERTED” = Open	Mute	Low
3	J3 - pin 7	EXTERNAL RESET	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
4	J3 - pin 2	FD DATA LOAD	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
5	J3 - pin 8	DATA LOAD LINK	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
6	J3 - pin 24	SYS CONFIG 2	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
7	J3 - pin 4	SYS CONFIG 3	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
8	J3 - pin 9	SYS CONFIG 4	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
9	J3 - pin 5	SYS CONFIG 5	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
10	J3 - pin 6	SYS CONFIG 6	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
11	J3 - pin 1	SYS CONFIG 7	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
12	J3 - pin 15	SYS CONFIG 8	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
13	J3 - pin 16	SYS CONFIG 9	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
14	J3 - pin 3	SYS CONFIG 10	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
15	J3 - pin 17	SYS CONFIG 11	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
16	J3 - pin 25	SYS CONFIG 12	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X

Default Discrete In Button Configuration:

Discrete In Number:	Pin:	Name:	Function:	Icon Image	Icon State
1	J1 - pin 10	CALL 1 CD1	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
2	J1 - pin 9	CALL 2 CD1	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
3	J1 - pin 4	LGA LNA ON/OFF CTRL	“ASSERTED” = Grounded “DE-ASSERTED” = Open	X	X
4	J1 - pin 8	SPARE DISCRETE OUT 1	“ASSERTED” = Grounded “DE-ASSERTED” = Open	LRU power	Low
5	J1 - pin 3	SPARE DISCRETE OUT 2	“ASSERTED” = Grounded “DE-ASSERTED” = Open	Data	Low
6	J1 - pin 14	SPARE DISCRETE OUT 3	“ASSERTED” = Grounded “DE-ASSERTED” = Open	Fault	Low

2 Panel Pinout Overview:

The next sections show all of the pinouts for the Maintenance Interface Panel. Items highlighted in yellow indicate a direct pass-through to the J101 connector. The pin designations are configurable through a loadable file; therefore, the pins may be used for any actual signals as desired. The ones listed here are suggested or named by default. Each signal must be below a maximum of 1 ampere each.

Panel J1 Connector Pinouts:

J1, 57 pin female CPC TE Connectivity, P/N: 1-796329-1 Mates With: TE Connectivity, P/N: 206437-1 Pin P/N: M39029/64-369 pins Backshell: TE Connectivity, P/N: 182930-1			
Pin 1	No Connection	Pin 6	No Connection
Pin 2	No Connection	Pin 7	No Connection
Pin 3	Discrete 5 Input (SPARE DISCRETE OUT 2)	Pin 8	Discrete 4 Input (SPARE DISCRETE OUT 1)
Pin 4	Discrete 3 Input (LG LNA ON/OFF CTRL)	Pin 9	Discrete 2 Input (Call 2 CD1)
Pin 5	No Connection	Pin 10	Discrete 1 Input (Call 1 CD1)

**J1, 57 pin female CPC
TE Connectivity, P/N: 1-796329-1**

**Mates With:
TE Connectivity, P/N: 206437-1
Pin P/N: M39029/64-369 pins**

**Backshell:
TE Connectivity, P/N: 182930-1**

Pin 11	No Connection	Pin 35	No Connection
Pin 12	No Connection	Pin 36	No Connection
Pin 13	No Connection	Pin 37	No Connection
Pin 14	Discrete 6 Input (SPARE DISCRETE OUT 3)	Pin 38	No Connection
Pin 15	A429 RX – MCDU 3 A (J101, pin 25)	Pin 39	No Connection
Pin 16	A429 RX – MCDU 3 B (J101, pin 2)	Pin 40	No Connection
Pin 17	Spare (J101, pin 17)	Pin 41	No Connection
Pin 18	No Connection	Pin 42	No Connection
Pin 19	No Connection	Pin 43	No Connection
Pin 20	No Connection	Pin 44	No Connection
Pin 21	No Connection	Pin 45	No Connection
Pin 22	A429 RX – MCDU 1 A (J101, pin 9)	Pin 46	No Connection
Pin 23	Ground	Pin 47	No Connection
Pin 24	A429 RX – MCDU 1 B (J101, pin 8)	Pin 48	No Connection
Pin 25	Spare (J101, pin 3)	Pin 49	No Connection
Pin 26	No Connection	Pin 50	No Connection
Pin 27	No Connection	Pin 51	No Connection
Pin 28	No Connection	Pin 52	CEPT-E1 Port 1, Pin 2
Pin 29	No Connection	Pin 53	CEPT-E1 Port 1, Pin 6
Pin 30	Ground	Pin 54	No Connection
Pin 31	Ground	Pin 55	No Connection
Pin 32	A429 RX – MCDU 2 A (J101, pin 10)	Pin 56	CEPT-E1 Port 1, Pin 1
Pin 33	A429 RX – MCDU 2 B (J101, pin 4)	Pin 57	CEPT-E1 Port 1, Pin 3
Pin 34	No Connection		

Panel J2 Connector Pinouts:

J2, 28 pin female CPC TE Connectivity, P/N: 206038-1 Mates With: TE Connectivity, P/N: 206039-1 Pin P/N: M39029/64-369 pins Backshell: TE Connectivity, P/N: 182661-1			
Pin 1	A429 TX – MCDU 1, 2, 3 A (J101, pin 50)	Pin 15	Spare (J101, pin 13)
Pin 2	A429 TX – MCDU 1, 2, 3 A (J101, pin 55)	Pin 16	Ground
Pin 3	A429 TX – MCDU 1, 2, 3 A (J101, pin 48)	Pin 17	Ground
Pin 4	A429 TX – MCDU 1, 2, 3 B (J101, pin 42)	Pin 18	Ground
Pin 5	A429 TX – MCDU 1, 2, 3 B (J101, pin 49)	Pin 19	Ground
Pin 6	A429 TX – MCDU 1, 2, 3 B (J101, pin 51)	Pin 20	4-WIRE INTERFACE (RX-) (J101, pin 57)
Pin 7	Spare (J101, pin 40)	Pin 21	A429 RX – CMU 2 A (J101, pin 20)
Pin 8	4-WIRE INTERFACE 1 (TX-) (J101, pin 47)	Pin 22	A429 RX – CMU 2 B (J101, pin 26)
Pin 9	A429 RX – CMU 1 A (J101, pin 35)	Pin 23	A429 TX – CMU 1, 2 A (J101, pin 27)
Pin 10	A429 RX – CMU 1 B (J101, pin 43)	Pin 24	A429 TX – CMU 1, 2 A (J101, pin 34)
Pin 11	Ground	Pin 25	A429 TX – CMU 1, 2 B (J101, pin 12)
Pin 12	4-WIRE INTERFACE (MIC ON) (J101, pin 41)	Pin 26	A429 TX – CMU 1, 2 B (J101, pin 18)
Pin 13	4-WIRE INTERFACE (TX+) (J101, pin 54)	Pin 27	A429 RX – IRS 2 A (J101, pin 11)
Pin 14	4-WIRE INTERFACE (RX+) (J101, pin 53)	Pin 28	A429 RX – IRS 2 B (J101, pin 19)

Panel J3 Connector Pinouts:

J3, 63 pin male CPC TE Connectivity, P/N: 206455-2 Mates With: TE Connectivity, P/N: 205842-1 Pin P/N: M39029/63-368 pins Backshell: TE Connectivity, P/N: 182930-1			
Pin 1	Discrete 11 SYS CONFIG 7 (to SDU)	Pin 7	Discrete 3 EXTERNAL RESET (to SDU)
Pin 2	Discrete 4 FD DATA LOAD (to SDU)	Pin 8	Discrete 5 DATA LOAD LINK (to SDU)
Pin 3	Discrete 14 SYS CONFIG 10 (to SDU)	Pin 9	Discrete 8 SYS CONFIG 4 (to SDU)
Pin 4	Discrete 7 SYS CONFIG 3 (to SDU)	Pin 10	ARINC 429 Tx - 1A (to SDU)
Pin 5	Discrete 9 SYS CONFIG 5 (to SDU)	Pin 11	ARINC 429 Tx - 1B (to SDU)
Pin 6	Discrete 10 SYS CONFIG 6 (to SDU)	Pin 12	No Connection

<p style="text-align: center;">J3, 63 pin male CPC TE Connectivity, P/N: 206455-2</p> <p style="text-align: center;">Mates With: TE Connectivity, P/N: 205842-1 Pin P/N: M39029/63-368 pins</p> <p style="text-align: center;">Backshell: TE Connectivity, P/N: 182930-1</p>			
Pin 13	Ground	Pin 39	Ground
Pin 14	Discrete 2 WOW (to SDU)	Pin 40	Ground
Pin 15	Discrete 12 SYS CONFIG 8 (to SDU)	Pin 41	Ground
Pin 16	Discrete 13 SYS CONFIG 9 (to SDU)	Pin 42	Ground
Pin 17	Discrete 15 SYS CONFIG 11 (to SDU)	Pin 43	Ground
Pin 18	ARINC 429 Tx - 2A (to SDU)	Pin 44	4-WIRE INTERFACE 2 (RX-) (J101, pin 36)
Pin 19	ARINC 429 Tx - 2B (to SDU)	Pin 45	24VDC Switched Power (RLY/FAN)
Pin 20	No Connection	Pin 46	24VDC Switched Power (RLY/FAN)
Pin 21	Ground	Pin 47	Ground
Pin 22	Discrete 1 TX MUTE (to SDU)	Pin 48	A429 RX – AES ID A (J101, pin 32)
Pin 23	Ground	Pin 49	A429 RX – AES ID B (J101, pin 1)
Pin 24	Discrete 6 SYS CONFIG 2 (to SDU)	Pin 50	Ground
Pin 25	Discrete 16 SYS CONFIG 11 (to SDU)	Pin 51	4-WIRE INTERFACE 2 (TX+) (J101, pin 45)
Pin 26	No Connection	Pin 52	4-WIRE INTERFACE 2 (RX+) (J101, pin 44)
Pin 27	No Connection	Pin 53	No Connection
Pin 28	Ground	Pin 54	A429 RX – CFDS A (J101, pin 16)
Pin 29	Ground	Pin 55	A429 RX – CFDS B (J101, pin 24)
Pin 30	Ground	Pin 56	Spare (J101, pin 7)
Pin 31	Ground	Pin 57	4-WIRE INTERFACE 2 (MIC ON) (J101, pin 39)
Pin 32	Ground	Pin 58	Spare (J101, pin 52)
Pin 33	Ground	Pin 59	4-WIRE INTERFACE 2 (TX-) (J101, pin 56)
Pin 34	Ground	Pin 60	Spare (J101, pin 15)
Pin 35	A-sync RS232 1 Tx (to AMT-700)	Pin 61	Spare (J101, pin 14)
Pin 36	A-sync RS232 1 Rx (from AMT700)	Pin 62	A429 TX – CFDS A (J101, pin 33)
Pin 37	24VDC Switched Power (RLY/FAN)	Pin 63	A429 TX – CFDS B (J101, pin 46)
Pin 38	Ground		

Panel J4 Connector Pinouts:

J4, 9 pin male CPC TE Connectivity, P/N: 206486-1 Mates With: TE Connectivity, P/N: 206485-1 Pin P/N: M39029/63-368 pins Backshell: TE Connectivity, P/N: 1-206062-6			
Pin 1	No Connection	Pin 5	24VDC Switched Power (ANT SYS)
Pin 2	No Connection	Pin 6	Ground
Pin 3	Ground	Pin 7	No Connection
Pin 4	24VDC Switched Power (ANT SYS)	Pin 8	No Connection
		Pin 9	Ground

Panel J101 Connector Pinouts:

J101, 57 pin female CPC TE Connectivity, P/N: 1-796329-1 Mates With: TE Connectivity, P/N: 206437-1 Pin P/N: M39029/64-369 pins Backshell: TE Connectivity, P/N: 182930-1			
Pin 1	A429 RX – AES ID B	Pin 14	Spare
Pin 2	A429 RX – MCDU 3 B	Pin 15	Spare
Pin 3	Spare	Pin 16	A429 RX – CFDS A
Pin 4	A429 RX – MCDU 2 B	Pin 17	Spare
Pin 5	Spare	Pin 18	A429 TX – CMU 1, 2, B
Pin 6	Spare	Pin 19	A429 RX – IRS 2 B
Pin 7	Spare	Pin 20	A429 RX – CMU 2 A
Pin 8	A429 RX – MCDU 1 B	Pin 21	Ground
Pin 9	A429 RX – MCDU 1 A	Pin 22	Ground
Pin 10	A429 RX – MCDU 2 A	Pin 23	Ground
Pin 11	A429 RX – IRS 2 A	Pin 24	A429 RX – CFDS B
Pin 12	A429 TX – CMU 1, 2 B	Pin 25	A429 RX – MCDU 3 A
Pin 13	Spare	Pin 26	A429 RX – CMU 2 B

J101, 57 pin female CPC TE Connectivity, P/N: 1-796329-1			
Mates With: TE Connectivity, P/N: 206437-1 Pin P/N: M39029/64-369 pins			
Backshell: TE Connectivity, P/N: 182930-1			
Pin 27	A429 TX – CMU 1, 2 A	Pin 43	A429 RX – CMU 1 B
Pin 28	No Connection	Pin 44	4-WIRE INTERFACE 2 (RX+)
Pin 29	Ground	Pin 45	4-WIRE INTERFACE 2 (TX+)
Pin 30	Ground	Pin 46	A429 TX – CFDS B
Pin 31	No Connection	Pin 47	4-WIRE INTERFACE (TX-)
Pin 32	A429 RX – AES ID A	Pin 48	A429 TX – MCDU 1, 2, 3 A
Pin 33	A429 TX – CFDS A	Pin 49	A429 TX – MCDU 1, 2, 3 B
Pin 34	A429 TX – CMU 1, 2 A	Pin 50	A429 TX – MCDU 1, 2, 3 A
Pin 35	A429 RX – CMU 1 A	Pin 51	A429 TX – MCDU 1, 2, 3 B
Pin 36	4-WIRE INTERFACE 2 (RX-)	Pin 52	Spare
Pin 37	Ground	Pin 53	4- WIRE INTERFACE (RX+)
Pin 38	Ground	Pin 54	4- WIRE INTERFACE (TX+)
Pin 39	4-WIRE INTERFACE 2 (MIC ON)	Pin 55	A429 TX – MCDU 1, 2, 3 A
Pin 40	Spare	Pin 56	4-WIRE INTERFACE 2 (TX-)
Pin 41	4- WIRE INTERFACE (MIC ON)	Pin 57	4- WIRE INTERFACE (RX-)
Pin 42	A429 TX – MCDU 1, 2, 3 B		

Contact Us:

Please feel free to contact us if you need any additional help with the operation of this device.

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