

Flex I/O Series

I/O Expansion Module for MIC-7 Series



Features

- Flexible expansion for various I/O connection
- Flex I/O expansion on the front panel for same-side cabling
- Support various display interfaces and the 3rd output
- Support I/O and intelligent alarm function
- Expand two more LAN ports
- Expand for 2 x 2.5" SSD
- Support TPM module
- MIC-7 Series compatible

Introduction

Flex I/O series modules provide flexible expansion for MIC-7 Series so customers can enjoy display, more control, and better communication via Flex I/O. All Flex I/O are attached directly from connectors reserved on the MIC-7 series main board and installed on the front panel, making it easy to fulfill machine, factory automation, and IEM deployments.

Flex I/O Assembly Example

Small Flex I/O



Default MIC-770



Small Flex I/O Remote Switch



After Assembly

Regular Flex I/O



Default MIC-770



Regular Flex I/O DVI



After Assembly



Default MIC-770



Small Flex I/O Remote Switch



Regular Flex I/O DVI



After Assembly

Advanced Flex I/O



Default MIC-770



Advanced Flex I/O NVME + 4x LAN



After Assembly



Default MIC-770



Advanced Flex I/O 4 x PoE



After Assembly

Compatible Table

Flex I/O	Function	Part Number	MIC-7700			MIC-770 V1		MIC-770 V2		MIC-770 V3		MIC-780	
			MIC-7700Q- A2	MIC-7700Q- B1	MIC-7700H	MIC-770Q	MIC-770H	MIC-770W	MIC-770H	MIC-770W	MIC-770H	MIC-780W	MIC-780H
Small FIO													
	Remote Switch	98R17500701	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓
	GPIO module (32bit)	AIS-DIO32-00A1E	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	HDMI	98R17502000	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-
	Display Port	98R17503000	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-
	DVI	98R17504000	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-
Regular FIO													
	DVI	98R17500001	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-
	HDMI & Remote Switch	98R17500101	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-
	HDMI	98R17500301	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-
	Remote Switch	98R17500401	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	4x COM RS-232	98R17500601	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓
	Reset & Remote Switch & 5VDC	98R17500801	✓	✓	✓	✓	✓	✓	✓	-	-	-	-
	Reset & Remote Switch & 5VDC (SATA)	98R17500802	-	-	-	-	-	-	-	✓	✓	✓	✓
	16 bit GPIO	98R17500901	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Display Port	98R17501001	✓	✓	✓	-	-	✓	✓	✓	✓	-	-
	Dual LAN	9891790040E	✓	-	-	-	-	-	-	-	-	-	-
	Dual LAN	9891790041E	-	✓	-	-	-	-	-	-	-	-	-
	TPM 2.0 module (LPC)	PCA-TPM-00B1E	✓	✓	✓	✓	✓	✓	✓	-	-	-	-
	*TPM 2.0 module (SPI)*	PCA-TPMSPI-00A1	-	-	-	-	-	-	-	✓	✓	✓	✓
	2x SSD kit	98R1752020E	✓	-	-	✓	✓	✓	✓	✓	✓	-	-
Advanced FIO													
	2 x Lan, i210AT	98910770320	-	-	-	✓	-	✓	-	✓	-	✓	-
	NVME +4 x Lan, i210AT	98910770330	-	-	-	✓	-	✓	-	✓	-	✓	-
	2 x Lan, i226V	98910770340	-	-	-	✓	-	✓	-	✓	-	✓	-
	NVME +4 x Lan, i226V	98910770350	-	-	-	✓	-	✓	-	✓	-	✓	-
	NVME	98910770401	-	-	-	✓	-	✓	-	✓	-	✓	-
	4 x PoE	98910770501	-	-	-	✓	-	✓	-	✓	-	✓	-
Full FIO**													
	2 x LAN & 2 x DB9	98R17511000	-	-	-	✓	-	✓	-	✓	-	✓	-
	4 x LAN & 2 x DB9	98R17512000	-	-	-	✓	-	✓	-	✓	-	✓	-

* H SKU does not support. Please refer to Advanced Flex I/O datasheet for more detail.
 ** Full FIO only contain bracket.
 Note: For the additional display port (DVI/HDMI/DP), please refer to the MIC-7 series datasheet.

Ordering Information

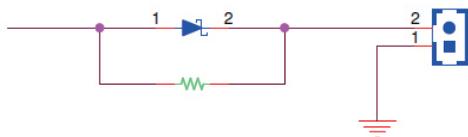
Part Number	Description
Small FIO	
98R17500701	MIC Remote Switch kit for SFIO
AIIS-DIO32-00A1E**	AIIS GPIO (32 bit)
98R17502000	MIC HDMI kit for SFIO
98R17503000	MIC Display Port kit for SFIO
98R17504000	MIC DVI kit for SFIO
Regular FIO	
98R17500001	MIC DVI kit FIO
98R17500101	MIC HDMI/Remote Switch kit FIO
98R17500301	MIC HDMI kit FIO
98R17500401	MIC Remote Switch kit FIO
98R17500601	MIC COMport kit FIO (4x COM RS-232 via 2x dual DB9 cable)
98R17500801	MIC Reset/Remote Switch/5VDC kit FIO
98R17500802	MIC Reset/Remote power on/off/5VDC kit FIO (SATA)
98R17500901	MIC GPIO kit (2x 8 bit GPIO cables)
98R17501001	MIC Display Port kit FIO
9891790040E*	MIC Dual LAN kit FIO
9891790041E*	MIC Dual LAN kit FIO
PCA-TPM-00B1E	TPM 2.0 module (LPC)
PCA-TPMSPI-00A1	TPM 2.0 module (SPI)
98R1752020E	2 x 2.5" SSD kit (7mm thick)
Advanced Flex I/O	
98910770320	MIC 2 x Lan, i210AT
98910770330	MIC NVMe +4 x Lan, i210AT
98910770340	MIC 2 x Lan, i226V
98910770350	MIC NVMe +4 x Lan, i226V
98910770401	MIC NVMe FIO
98910770501***	MIC 4 PoE FIO
Full FIO****	
98R17511000	MIC 2 x LAN + 2 x DB9, BKT Kit
98R17512000	MIC 4 x LAN + 2 x DB9, BKT Kit

Note: Cable/module, cover and screws are included.
 *Can't support PCA-TPM-00B1E when install 9891790040E.
 ** Can only be placed in the small FIO location and can't be installed with other flex IO.
 *** Can't be installed with other flex IO.
 **** Full FIO only contain bracket.

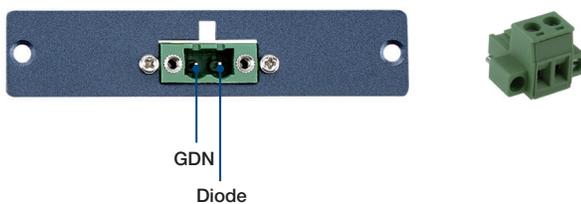
Pin Definition

98R17500101, 98R17500401, 98R17500701

Remote switch pin definition



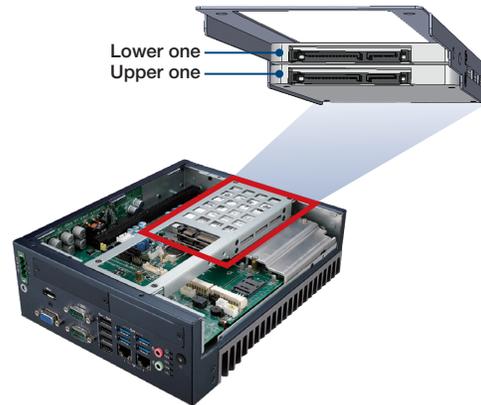
Connector pin definition



Note: 2-pin phoenix contact terminal block is included in remote switch kit. Can connect to ATX power button via cable. Remote switch supports ATX power button via 2-pin (power button is not included).

98R1752020E 2x 2.5" SSD kit Assembly

2 x 2.5" SSD assembled in the dual SSD tray

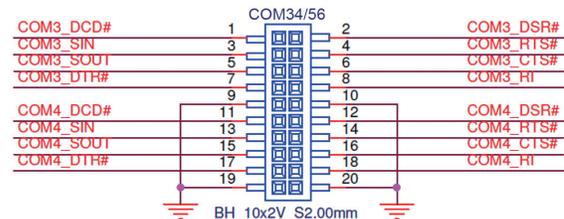


Example: Assembled inside of MIC-770

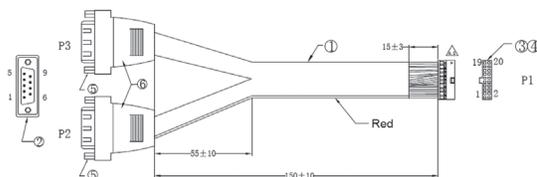
Note 1: Compatible with MIC-7 series Flex I/O and Advanced Flex I/O
 Note 2: Support 2 x 2.5" 7mm thick SSD only (HDD is not recommended)
 Note 3: SSD is not included

98R17500601

COM 34/56 pin definition

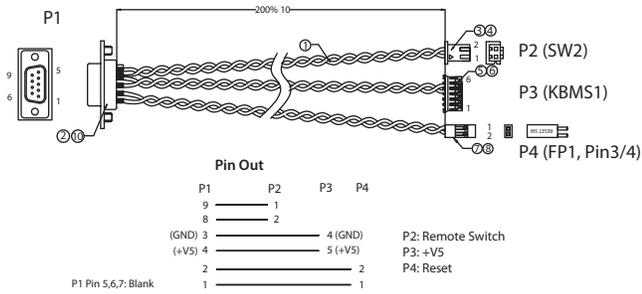


DB9 Connector pin definition



PIN	OUT
1	1
2	6
3	12
4	13
5	3
6	8
7	5
8	9
9	5
10	5
11	1
12	6
13	12
14	13
15	3
16	8
17	4
18	5
19	5
20	5

98R17500801

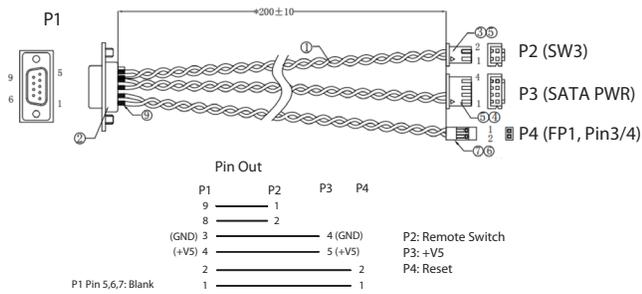


AIIS-DIO32-00A1E

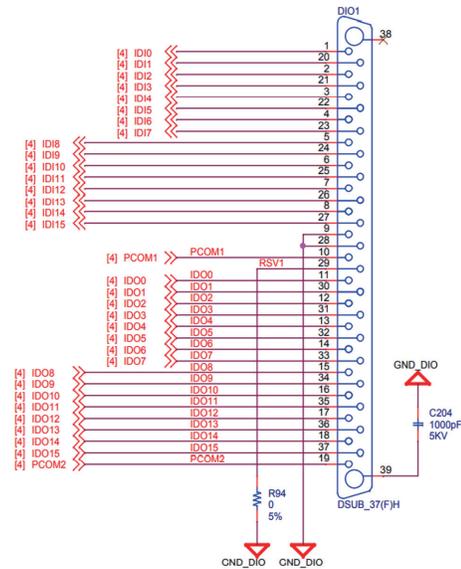
DIO pin definition

Pin01 => IDI0	Pin20 => IDI1
Pin02 => IDI2	Pin21 => IDI3
Pin03 => IDI4	Pin22 => IDI5
Pin04 => IDI6	Pin23 => IDI7
Pin05 => IDI8	Pin24 => IDI9
Pin06 => IDI10	Pin25 => IDI11
Pin07 => IDI12	Pin26 => IDI13
Pin08 => IDI14	Pin27 => IDI15
Pin09 => [GND]	Pin28 => [GND]
Pin10 => PCOM1	Pin29 => [GND]
Pin11 => IDO0	Pin30 => IDO1
Pin12 => IDO2	Pin31 => IDO3
Pin13 => IDO4	Pin32 => IDO5
Pin14 => IDO6	Pin33 => IDO7
Pin15 => IDO8	Pin34 => IDO9
Pin16 => IDO10	Pin35 => IDO11
Pin17 => IDO12	Pin36 => IDO13
Pin18 => IDO14	Pin37 => IDO15
Pin19 => PCOM2	

98R17500802

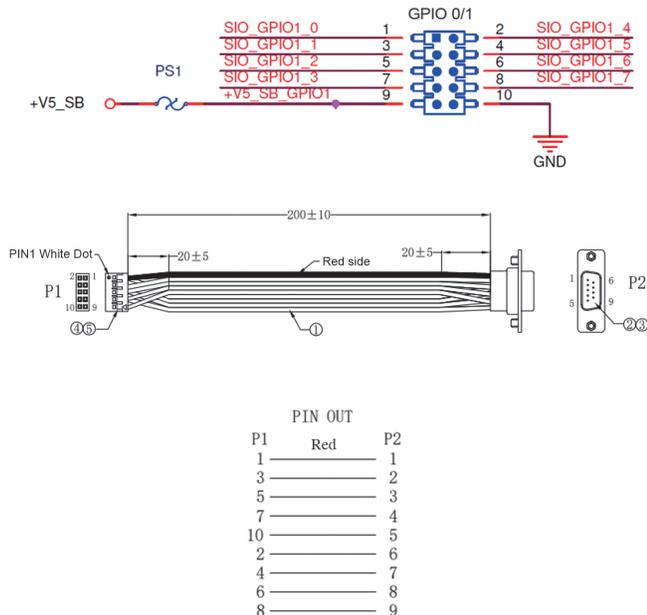


DB37 connector pin definition



98R17500901

GPIO 0/1 pin definition



Note 1: GPIO0 and GPIO1 pin definition are the same.
Note 2: P1 Pin 9: Blank