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



Regular Flex I/O



Small + Regular Flex I/O



Advanced Flex I/O



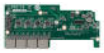
Full Flex I/O



98R17500601 + 98910770350 + 98R17511000,
98R17511000 only contain bracket.

All product specifications are subject to change without notice.

Compatible Table

Flex I/O	Function	Part Number	MIC-7700			MIC-770 V1		MIC-770 V2		MIC-770 V3		MIC-780		MIC-785
			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	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
	HDMI	98R17502000	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-
	Display Port	98R17503000	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-
	DVI	98R17504000	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-
	Reset & Remote Switch & 5VDC (SATA)	98R17500803	-	-	-	-	-	-	-	✓	✓	✓	✓	✓
Regular FIO														
	GPIO module (32bit)	AIIS-DIO32-00A1E	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	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	✓	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	✓	-	✓	-	✓	-	✓	-	✓
	4 x USB	98917701000	-	-	-	✓	-	✓	-	✓	-	✓	-	✓
	8 x USB	98917701100	-	-	-	✓	-	✓	-	✓	-	✓	-	✓
Full FIO														
	Dual LAN	9891790041E	-	✓	-	-	-	-	-	-	-	-	-	-
	2 x LAN & 2 x DB9	98R17511000**	-	-	-	✓	-	✓	-	✓	-	✓	-	✓
	4 x LAN & 2 x DB9	98R17512000**	-	-	-	✓	-	✓	-	✓	-	✓	-	✓
	4 x USB & 2 x DB9	98R17513000**	-	-	-	✓	-	✓	-	✓	-	✓	-	✓
Featured														
	TPM 2.0 module (LPC)	PCA-TPM-00B1E	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-
	TPM 2.0 module (SPI)	PCA-TPMSPI-00A1	-	-	-	-	-	-	-	✓	✓	✓	✓	✓
	2x SSD kit	98R1752020E	✓	-	-	✓	✓	✓	✓	✓	✓	-	-	-

* H SKU does not support. Please refer to Advanced Flex I/O datasheet for more detail.
** 98R17511000 & 98R17512000 only contain bracket.
Note: For the additional display port (DVI/HDMI/DP), please refer to the MIC-7 series datasheet.

Ordering Information

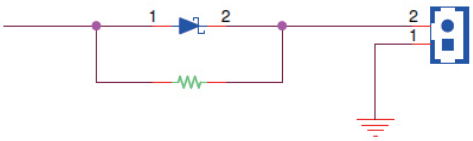
Part Number	Description
	Small FIO
98R17500701	MIC Remote Switch kit for SFIO
98R17502000	MIC HDMI kit for SFIO
98R17503000	MIC Display Port kit for SFIO
98R17504000	MIC DVI kit for SFIO
98R17500803	MIC Reset/Remote power on/off/5VDC kit FIO (SATA) for SFIO
	Regular FIO
AIIS-DIO32-00A1E**	AIIS GPIO (32 bit)
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
	Advanced Flex I/O
98910770320	MIC 2 x Lan, i210AT, AFIO
98910770330	MIC NVME +4 x Lan, i210AT, AFIO
98910770340	MIC 2 x Lan, i226V, AFIO
98910770350	MIC NVME +4 x Lan, i226V, AFIO
98910770401	MIC NVMe, AFIO
98910770501***	MIC 4 x PoE, i350, AFIO
98917701000	MIC 4 x USB, AFIO
98917701100***	MIC 8 x USB, AFIO
	Full FIO
98R17511000****	MIC 2 x LAN + 2 x DB9, BKT Kit
98R17512000****	MIC 4 x LAN + 2 x DB9, BKT Kit
98R17513000****	MIC 4 x USB + 2 x DB9, BKT Kit
9891790041E*	MIC Dual LAN kit FIO
	Featured
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)

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.
**** 98R17511000 & 98R17512000 only contain bracket.

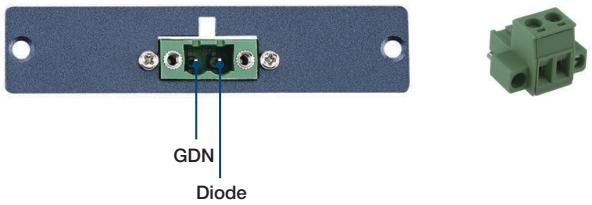
Pin Definition

98R17500101, 98R17500401, 98R17500701

Remote switch pin definition



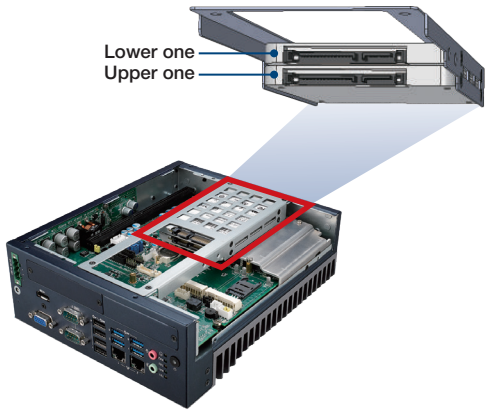
Connector pin definition



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 × 2.5" SSD assembled in the dual SSD tray

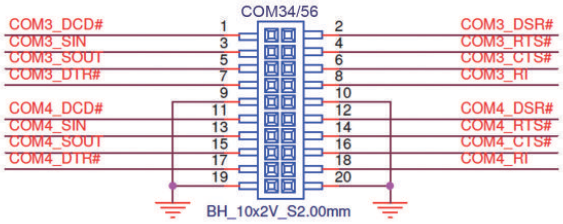


Example: Assembled inside of MIC-770

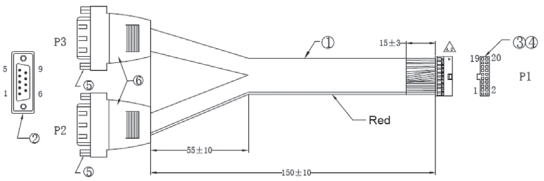
Note 1: Compilable with MIC-7 series Flex I/O and Advanced Flex I/O
Note 2: Support 2 x 2.5" 7mm thick SSD only (HDD is not recommended)
Note 3: SSD is not included

98R17500601

COM 34/56 pin definition

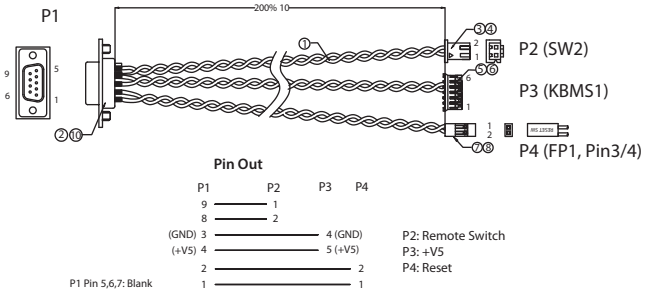


DB9 Connector pin definition

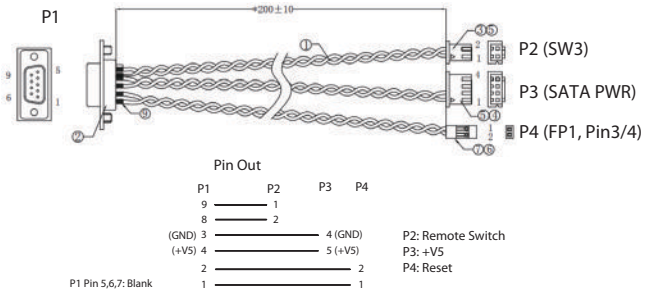




98R17500801

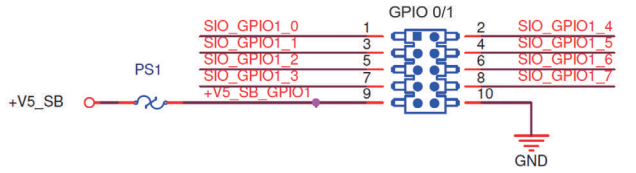


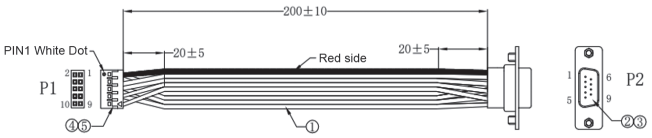
98R17500802/98R17500803



98R17500901

GPIO 0/1 pin definition





PIN OUT

P1	Red	P2
1		1
3		2
5		3
7		4
10		5
2		6
4		7
6		8
8		9

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

AIIS-DIO32-00A1E

DIO pin definition

Digital In	Pin01 => IDI0	Digital In	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]
Digital Out	Pin11 => IDO0	Digital Out	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		

DB37 connector pin definition

