

E&M Module for AP1800, AP2330, AP2340



AddPac

AddPac Technology

2010, Sales and Marketing

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- VoIP Modules for N1 Platform
- AP-N1-E&M4 Module Features





AP1800, AP2330, AP2340 N1 Platform

AP1800, AP2330, AP2340 N1 Platform

	AP1800	AP2330	AP2340
Model			
Module Slot	2 Module Slot	3 Module Slots	4 Module Slots
Media Gateway Service Module	Digital E1/T1, 8-Port FXS, 8-Port FXO, 4-Port E&M	8-Port FXS, 8-Port FXO, 4-Port E&M	8-Port FXS, 8-Port FXO, 4-Port E&M
Power Supply	Internal Power Module (AC)	Internal Power Module (AC)	Internal Power Module (AC)
Power Type	Built-In	Built-In	Built-In



VoIP Modules for N1 Platform

N1 Platform VoIP Modules

High-end
DSP

AP-N1-FXS8

8-Port FXS Voice Processing Module (8 x RJ11)



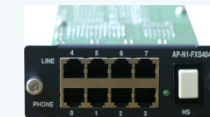
AP-N1-FXO8

8-Port FXO Voice Processing Module (8 x RJ11)



AP-N1-FXO4S4

4-Port FXO and 4-Port FXS Voice Processing Module (8 x RJ11)



AP-N1-E1T1

1-Port VoIP Digital E1/T1 Interface Module(1xRJ45)



AP-N1-2E1T1

2-Port VoIP Digital E1/T1 Interface Module(1xRJ45)



N1 Platform VoIP Modules

High-end
DSP

AP1800 VoIP Gateway

Back Side



4-Port E&M Interface (4 x RJ45)

8-Port FXS Module (8 x RJ11)



4-Port E&M Module for N1 Platform

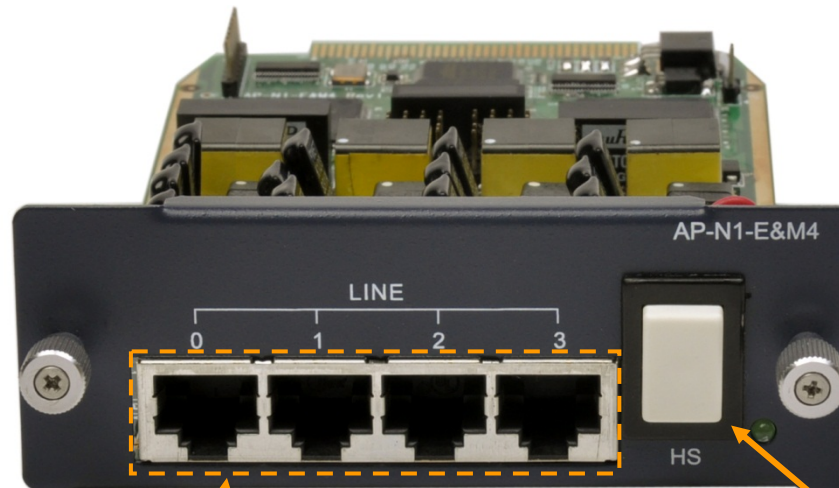
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- E&M Type Selection(Jumper Selection)
 - E&M 2-Wire Mode
 - E&M 4-Wire Mode

Hardware Specification

High-end
DSP

Hardware Module Specification

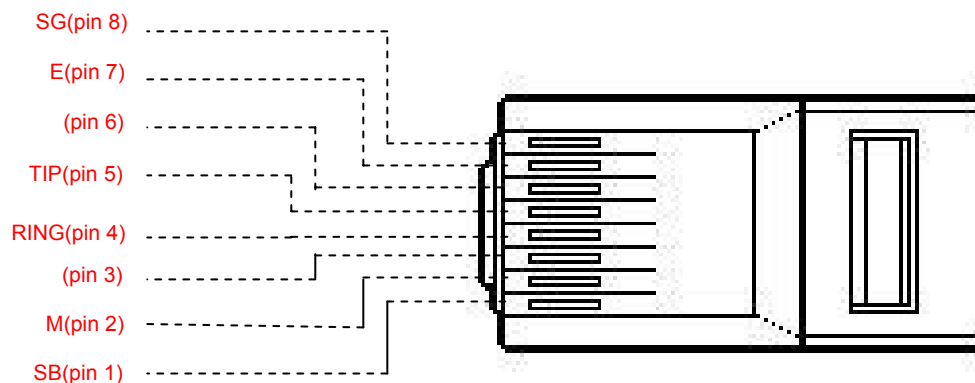


4-Port E&M Interface (4 x RJ45)

Hot-Swap Push Button

E&M 2 Wire Model

RJ45 Pin Assignment



E (Ear or Earth) - Signal wire from trunking (CO) side to signaling side.

M (Mouth or Magnet) - Signal wire from signaling side to trunking (CO) side.

SG (Signal Ground) - Used on E&M Types II, III, IV (Type IV is not supported on AddPac IP-PBX/gateways).

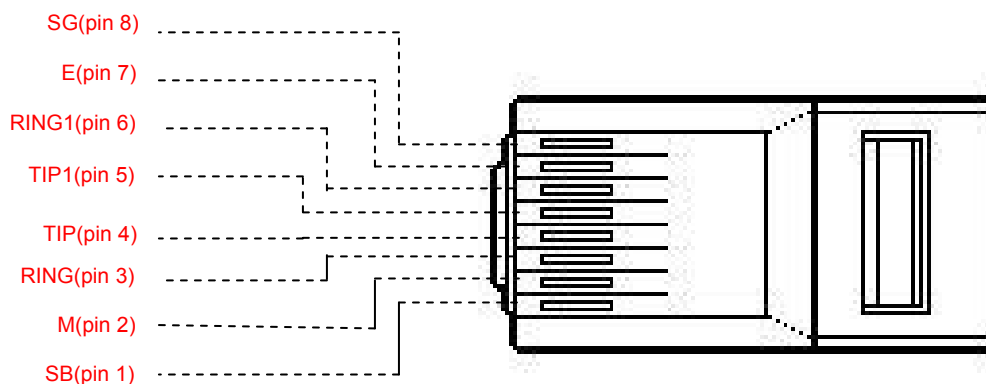
SB (Signal Battery) - Used on E&M Types II, III, IV (Type IV is not supported on AddPac IP-PBX/gateways)

T / R (Tip/Ring) - T / R leads carry audio between the signaling unit and the trunking circuit. On a 2-wire audio operation circuit, this pair carries the full-duplex audio path.

T1/R1 (Tip-1/Ring-1) - Used on 4-wire audio operation circuits only. The 4-wire implementation provides separate paths for receiving and sending audio signals.

E&M 4 Wire Model

RJ45 Pin Assignment



E (Ear or Earth) - Signal wire from trunking (CO) side to signaling side.

M (Mouth or Magnet) - Signal wire from signaling side to trunking (CO) side.

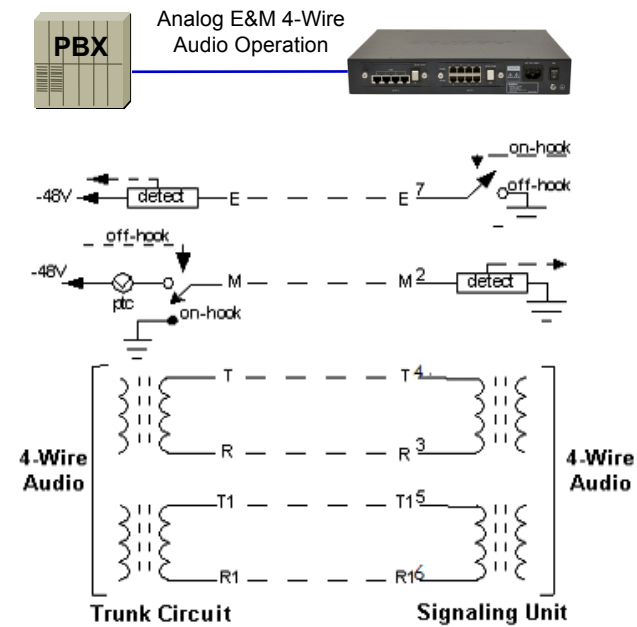
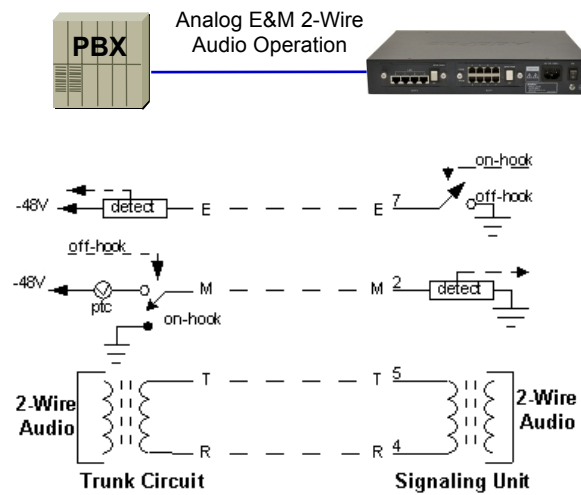
SG (Signal Ground) - Used on E&M Types II, III, IV (Type IV is not supported on AddPac IP-PBX/gateways).

SB (Signal Battery) - Used on E&M Types II, III, IV (Type IV is not supported on AddPac IP-PBX/gateways)

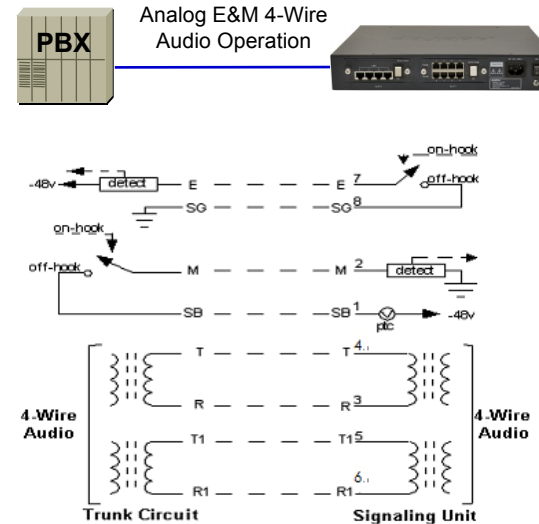
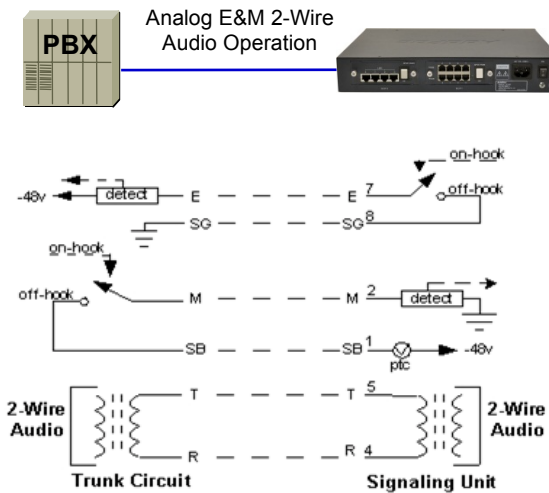
T / R (Tip/Ring) - T / R leads carry audio between the signaling unit and the trunking circuit. On a 2-wire audio operation circuit, this pair carries the full-duplex audio path.

T1/R1 (Tip-1/Ring-1) - Used on 4-wire audio operation circuits only. The 4-wire implementation provides separate paths for receiving and sending audio signals.

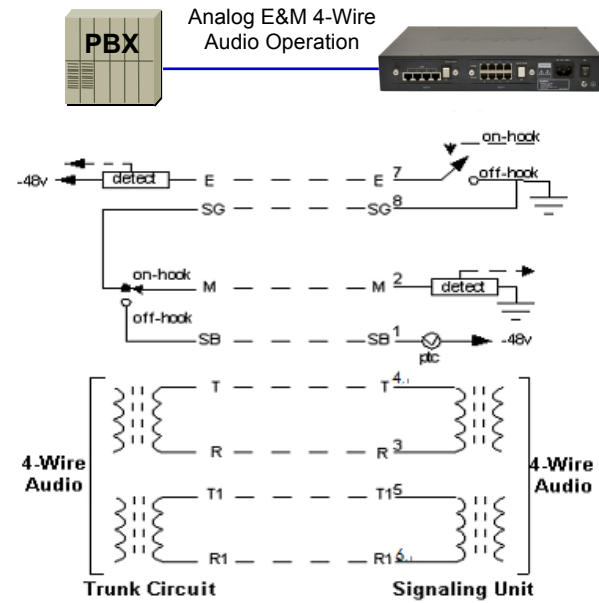
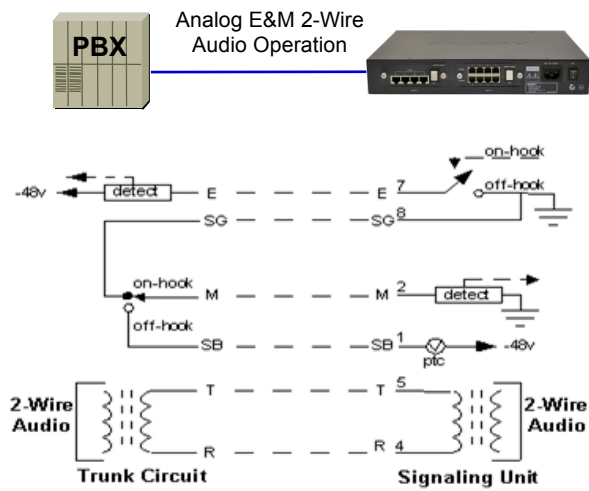
E&M Type I Interface



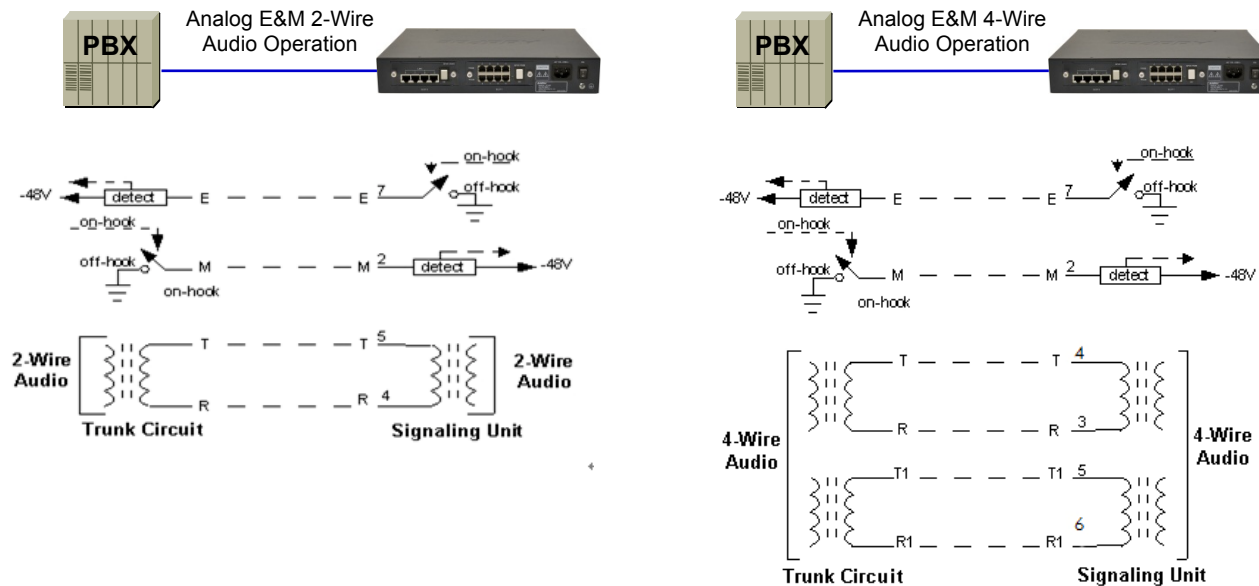
E&M Type II Interface



E&M Type III Interface

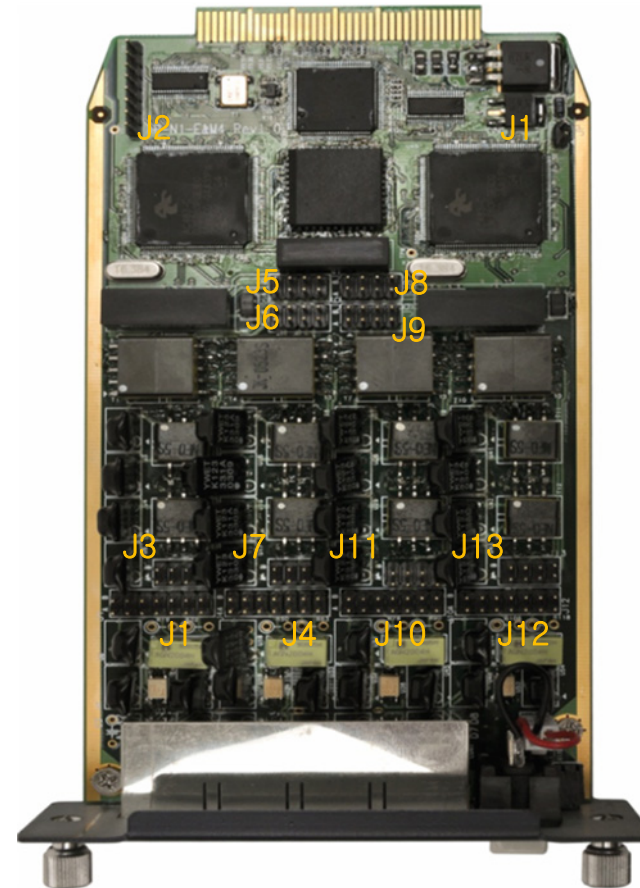
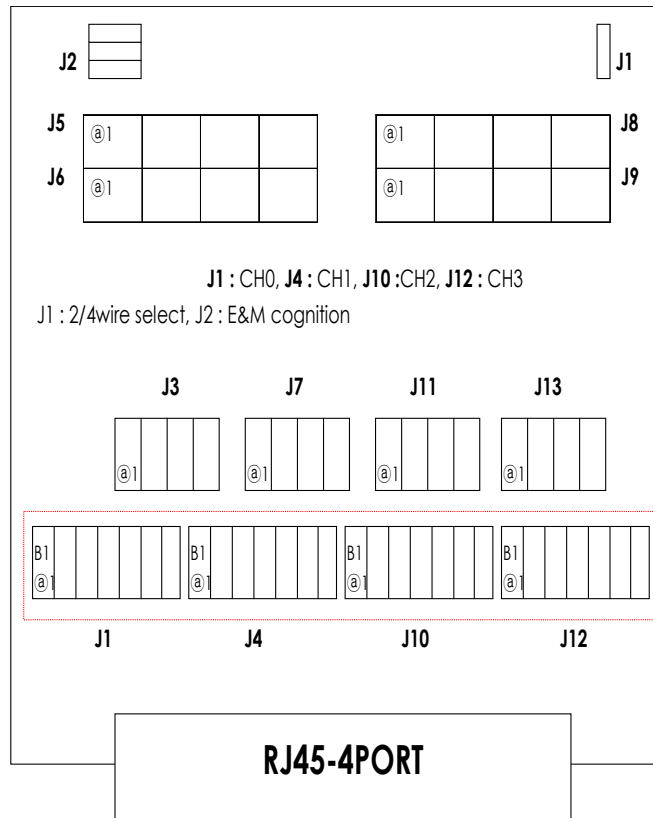


E&M Type V Interface



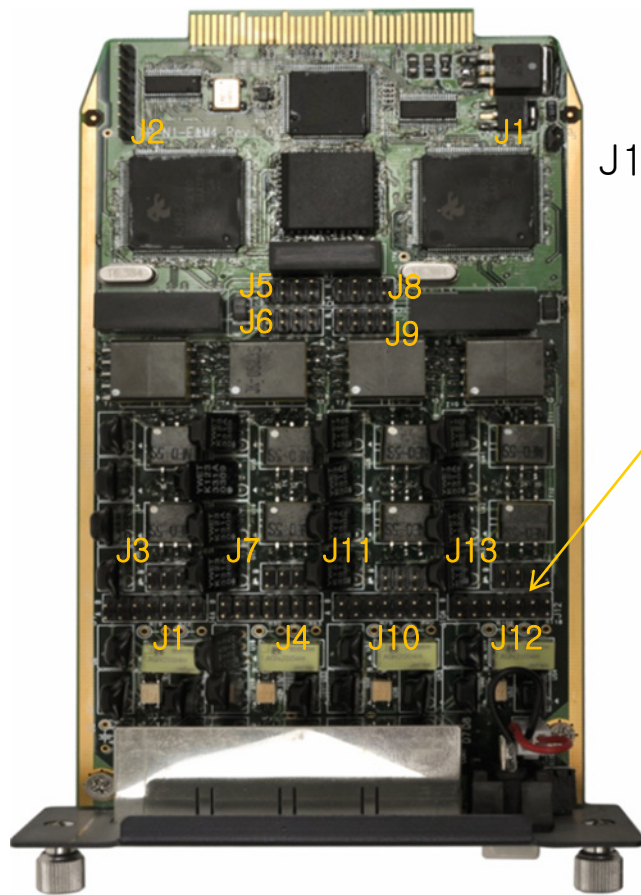
E&M Type Selection

E&M Card Jumper Layout

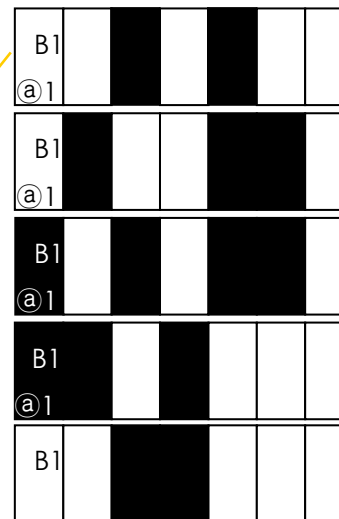


E&M Type Selection

E&M Card Type 1,2,3,5 Selection using Jumper J1,J4,J10,J12



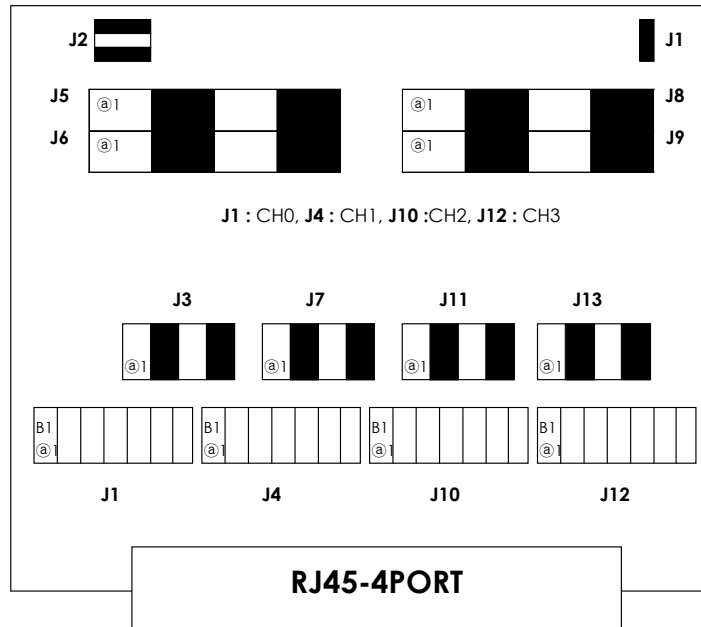
J1(CH#0),J4(CH#1),J10(CH#2),J12(CH#3)



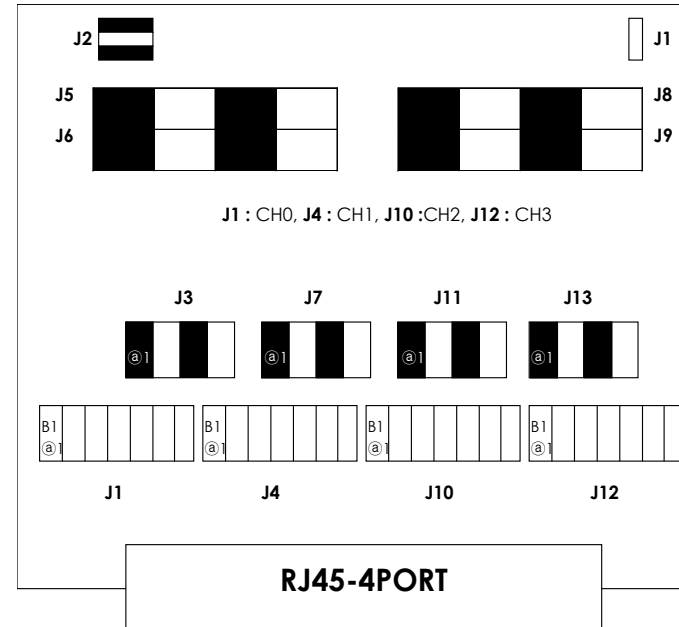
- E&M Type 1 Setting Example
- E&M Type 2 Setting Example
- E&M Type 3 Setting Example
- E&M Type 4 Setting Example
- E&M Type 5 Setting Example

E&M Type Selection

E&M 2-Wire Mode



E&M 4-Wire Mode



J3, J5 : CH0 2Wire, 4Wire Selection
 J7, J6 : CH1 2Wire, 4Wire Selection
 J11, J9 : CH2 2Wire, 4Wire Selection
 J13, J8 : CH3 2Wire, 4Wire Selection



* 2Wire Setting : A2, B2 Connection
 A4, B4 Connection



* 4Wire Setting : A1, B1 Connection
 A3, B3 Connection



Thank you!

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