20-Slot Frame Card Capacity and Rear Modules,

Frame card capacity is largely determined by the rear modules that mate a card with its rear panel user connections. For example, when using “split” rear modules, the card capacity in the 20-slot openGear®-compliant 2RU frame is greater than previously possible. 20-slot frames can be fitted with any mix of the rear module types described here, offering connection break-out that suits your requirements while maximizing frame capacity.

COBALT

Split Rear Module

2 cards per rear module
2 card slots used

20 cards per frame (max)
10 rear modules per frame (max)

Split Rear Module occupies 2 card slots, but also accommodates 2 card in adjacent slots. In this manner, for a frame fitted entirely with split rear modules, the maximum 20-card frame capacity can be achieved.

Notes:
- Split rear modules are available only for certain Cobalt cards. Consult our catalog, card Product Manual, or our website for availability of rear modules for particular cards.
- Split rear modules may not in all cases support the maximum number of connections offered by a card. (For example, a 9323 card fitted with a split rear module offers two AES ports vs. four available when using a standard rear module.) Some cards are available with split rear modules using high-density HD-BNC or DIN 1.0/2.3 connectors which allow more connections than with BNC connectors.
- In all cases, maximum frame power budget for user slot total must be considered when planning frame build-out:
  - HPF-9000 Frame: 360W user budget
  - OG3-FR Frame: 300W user budget
  - 8321 Frame: 120W user budget

If necessary, consult Cobalt Sales for assistance in power planning.

Standard-Width Rear Module

1 card per rear module
2 card slots used

10 cards per frame (max)
10 rear modules per frame (max)

Standard-Width Rear Module occupies 2 card slots and can accommodate BNC and wired connections such as balanced audio and GPIO connections. Standard-width rear modules are available for all Cobalt cards, and offer a wide variety of signals accommodation choices in the smallest space.

Notes:
- Not all slots can be fitted with cards when using a standard-width rear module (for example, when a standard-width module is fitted in the right-most frame position (viewed from rear), first available slot is slot 2, with slot 1 not being available). **Standard-width rear modules fit even slots unless noted otherwise.**
- In all cases, maximum frame power budget for user slot total must be considered when planning frame build-out:
  - HPF-9000 Frame: 360W user budget
  - OG3-FR Frame: 300W user budget
  - 8321 Frame: 120W user budget

If necessary, consult Cobalt Sales for assistance in power planning.

Double-Width Rear Module

1 card per rear module
4 card slots used

5 cards per frame (max)
5 rear modules per frame (max)

Double-Width Rear Module occupies 4 card slots and can accommodate a very high degree of signal count and types, including multiple BNC and wired connections such as balanced audio and GPIO connections.

Notes:
- Not all slots can be fitted with cards when using a double-width rear module (for example, when a double-width module is fitted in the right-most frame position (viewed from rear), first available slot is slot 2, with slot 1 not being available). **Double-width rear modules fit even slots unless noted otherwise.**
- In all cases, maximum frame power budget for user slot total must be considered when planning frame build-out:
  - HPF-9000 Frame: 360W user budget
  - OG3-FR Frame: 300W user budget
  - 8321 Frame: 120W user budget

If necessary, consult Cobalt Sales for assistance in power planning.

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Expansion Rear Module

(Fusion3G® only)

An **Expansion Rear Module** is used in conjunction with a Fusion3G® card equipped to provide optional connections such as analog audio I/O (which is in turn provided by an Expansion piggyback card factory-installed on the base card when this option is ordered). Expansion Rear Modules are identified with “X” in the part number and **must be used in conjunction with a Base Rear Module.**

The expansion rear module installs directly to the **left** of the base Rear Module (as shown viewed from rear), and interfaces with the piggyback card. **Base rear modules fit even slots, with expansion rear module fitting in next even slot to the left unless noted otherwise** (e.g., base in slot 2; expansion in slot 4).

The Fusion3G® base/piggyback card assembly occupies the space identical to that of two regular Fusion3G® cards using two standard-width rear modules.

Note: In all cases, maximum frame power budget for user slot total must be considered when planning frame build-out:
- HPF-9000 Frame: 360W user budget
- OG3-FR Frame: 300W user budget
- 8321 Frame: 120W user budget

If necessary, consult Cobalt Sales for assistance in power planning.

1 card assembly per base/expansion rear module combination
4 card slots used

→ **5** card assemblies per frame (max)
5 base/expansion rear modules per frame (max)

Expansion Rear Module installs directly to the **left** of base Rear Module, and interfaces with the piggyback card. In this example, an RM20-9901-XC expansion rear module breaks out analog audio connections provided by Option **+ANA** (analog audio option).

RM20-9901-B Rear Module provides connection break-out for base card functions.

High-Ventilation Rear Module

Ventilation openings allow increased ventilation in installations where normal above-frame ventilation clearance is reduced

1 card per rear module
2 card slots used

→ **10** cards per frame (max)
10 rear modules per frame (max)

High Ventilation (HV) Rear Module occupies 2 card slots and offers coaxial connections using miniaturized connectors (HDBNC or DIN 1.0/2.3). These rear modules have openings to increase ventilation where the normal recommended above-frame ventilation space (1 RU) cannot be accommodated.

Notes:
- HV (high-ventilation) rear modules are available only for certain Cobalt cards. Consult our catalog, card Product Manual, or our website for availability of high-ventilation rear modules for particular cards. **This rear module fits even slots unless noted otherwise.**
- (Fusion3G® only) Where a base HV rear module is to be used in conjunction with an expansion rear module, **a companion HV expansion rear module must also be used**. Both base and expansion HV rear modules use card positioning that optimizes air flow across the component surface of the card PCB. Also note that when using an expansion rear module, frame capacity then follows the form as specified in “Expansion Rear Module” above.
- In all cases, maximum frame power budget for user slot total must be considered when planning frame build-out:
  - HPF-9000 Frame: 360W user budget
  - OG3-FR Frame: 300W user budget
  - 8321 Frame: 120W user budget

  If necessary, consult Cobalt Sales for assistance in power planning.

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Application Note

Rear I/O Module Cross-Reference

Typically, various Cobalt Rear I/O Modules are applicable for several cards models, with a particular Manufacturing Part Number (MPN) being used for many cards. For example, the manufacturing part number “1845” denotes our widely used standard-width 10-BNC rear module, which is used for dozens of Cobalt® cards. This application note provides a cross-reference between our manufacturing part number and the card-specific Rear I/O Module part numbers to allow you, in some cases, to reuse rear modules you have on hand for new or different cards.

Find your rear module’s MPN code in this guide as follows:

MPN	Page	MPN	Page	MPN	Page	MPN	Page	MPN	Page
1845	1-2	1872	5	1845DS	9	1838	13	1946	17
1845S	2	1874	6	1834D	9	1904	13	1946S	17
1821	2	1876	6	1905D	10	1928	14	1947DS	18
1822	2	1877	6	1903	10	1913	14	1954D	18
1835	3	T6302A	7	1907D	10	1914	14	1959D	19
1834	3	1839	7	1844D	10	1919	14	1117D	19
1825	3	1896	7	1831DS	11	1924	15	1962D	19
1836	4	1844	8	1830	11	1930D	15	1107D	20
1878	4	1829	8	1830DS	11	1933D	16	1114D	20
1871	4	1879	8	T6303A	12	1934D	16	1964D	20
1837	4	1840	8	1950	12	1936D	16		
1875	5	1835D	9	1881	12	1937S	16		
1873	5	1900D	9	1847	13	1938DS	17		

Shown in this example is an **RM20-9821-A** Rear I/O Module that is based on the commonly used 10-BNC form **1845**. The 1845 rear module can, for example, also be used as **RM20-9501-A** for the 9501 card model.

Manufacturing Part Number (MPN in this example of “1845”) are screen-printed on the rear module PCB. In many cases, a particular MPN may be used on many other cards and is directly compatible also for these applications.

Use this guide to cross-reference between manufacturing part number and card “RM20” Rear I/O Module models.

Note:
- Illustrations accompanying cross-references are representational only. Connector designations may vary from those shown for certain applications. **Always** consult product manual, catalog, or web page for the specific card when connecting to a rear I/O module.
- List may not be all-inclusive. List is updated periodically.
- Model numbers are applicable across groups of same-base number models (for example, “RM20-9902-B” is directly applicable as same-suffix rear module for 9902-UDX, 9902-2UDX, 9902-UDX-FS and so on).
- It is recommended to consult web page for card that a rear module is being adapted for use. Page may have special information for the rear module used on the card model.
- Unless otherwise noted, all rear modules mate with card installed in an **even** slot. (Split rear modules (identified by “ /S” designation in RM20-number) always serve two cards in an adjacent odd/even pair).
- Rear modules applicable to only one card model are not listed.

Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference

Manufacturing PN	Rear I/O Module PNs					
1845 (supersedes 1820)	RM20-9001-A	RM20-9006-A	RM20-9021-A	RM20-9035-A	RM20-9067-A	RM20-9083-A
	RM20-9002-A	RM20-9011-A	RM20-9031-A	RM20-9061-A	RM20-9068-A	RM20-9084-A
	RM20-9003-A	RM20-9015-A	RM20-9032-A	RM20-9062-A	RM20-9071-A	RM20-9085-A
	RM20-9004-A	RM20-9016-A	RM20-9033-A	RM20-9064-A	RM20-9081-A	
	RM20-9005-A	RM20-9018-A	RM20-9034-A	RM20-9066-A	RM20-9082-A	

– continued on next page –

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs				
1845 (supersedes 1820) – Cont.	RM20-9086-A RM20-9251-A RM20-9253-A RM20-9257-A	RM20-9305-A RM20-9321-A RM20-9322-A RM20-9323-A	RM20-9362-A RM20-9363-A RM20-9371-C RM20-9372-C	RM20-9374-C RM20-9381-A RM20-9501-A RM20-9502-A	RM20-9821-A RM20-9822-A
1845S (supersedes 1820S)		RM20-9001-A/S RM20-9002-A/S RM20-9011-A/S RM20-9015-A/S RM20-9021-A/S RM20-9071-A/S	RM20-9081-A/S RM20-9082-A/S RM20-9083-A/S RM20-9084-A/S RM20-9085-A/S RM20-9086-A/S	RM20-9231-A/S RM20-9251-A/S RM20-9257-A/S RM20-9305-A/S RM20-9321-A/S RM20-9322-A/S	RM20-9323-A/S RM20-9362-A/S RM20-9363-A/S RM20-9381-A/S RM20-9821-A/S RM20-9910AV-A/S	RM20-9910WC-A/S
1821		RM20-9033-B RM20-9034-B	RM20-9035-B RM20-9061-B	RM20-9066-B RM20-9821-B	
1822		RM20-9083-B RM20-9321-B	RM20-9323-B RM20-9085-B		

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs
1825	 RM20-9083-F RM20-9085-F RM20-9323-F
1834	 RM20-9901-B RM20-9921-B RM20-9931-B RM20-9985-B RM20-9502-F
1835	 RM20-9901-XB RM20-9931-XB RM20-9921-XB RM20-9985-XB

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs	
1836		RM20-9901-C RM20-9921-C RM20-9931-C RM20-9985-C
1837		RM20-9901-D RM20-9921-D RM20-9931-D RM20-9985-D
1878		RM20-9901-E RM20-9921-E RM20-9931-E RM20-9985-E
1871		RM20-9035-D RM20-9061-D RM20-9066-D RM20-9083-H RM20-9085-H RM20-9301-D RM20-9322-C RM20-9323-H

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs	
1872	RM20-9083-C RM20-9085-C	RM20-9323-C RM20-9341-C
1873	RM20-9083-D RM20-9085-D	RM20-9321-E RM20-9323-D
1875	RM20-9033-C RM20-9034-C RM20-9035-C	RM20-9061-C RM20-9066-C

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs	
1874		RM20-9083-E RM20-9085-E
1876		RM20-9033-D RM20-9034-D RM20-9035-E RM20-9061-E RM20-9066-E
1877		RM20-9061-F RM20-9066-F RM20-9035-F RM20-9034-F RM20-9033-F

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs	
1896	RM20-9035-G RM20-9061-G RM20-9066-G	RM20-9083-G RM20-9085-G RM20-9323-G
T6302A	RM20-9262-B RM20-9345-B	
1839	RM20-9901-XC RM20-9921-XC	RM20-9931-XC RM20-9985-XC

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs		
1840		RM20-9901-XD RM20-9921-XD	RM20-9931-XD RM20-9985-XD
1879		RM20-9901-XE RM20-9921-XE	RM20-9931-XE RM20-9985-XE
1844		RM20-9901-XF RM20-9921-XF	RM20-9931-XF RM20-9985-XF
1829		RM20-9035-H RM20-9062-B RM20-9067-B RM20-9068-B RM20-9081-B	 RM20-9083-J RM20-9085-J RM20-9086-B RM20-9321-F	 RM20-9322-F RM20-9323-J RM20-9381-B RM20-9822-B

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs		
1845DS		RM20-9001-B/S RM20-9002-B/S RM20-9003-B/S RM20-9004-B/S RM20-9005-B/S	RM20-9006-B/S RM20-9257-B/S RM20-9232-B/S RM20-9231-B/S RM20-9821-C/S
1834D		RM20-9901-B-HV RM20-9921-B-HV RM20-9931-B-HV RM20-9985-B-HV	**Note:** • This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors. • This rear module mates to Fusion base card in **ODD** slot. Where an expansion (daughtercard) is used, it also **must** use an odd-slot expansion rear module.
1835D		RM20-9901-XB-HV RM20-9921-XB-HV RM20-9931-XB-HV RM20-9985-XB-HV	**Note:** • This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors. • This rear module mates to Fusion expansion card in **ODD** slot. This rear module **must** be used in conjunction with an odd-slot base rear module.
1900D		RM20-9033-E-DIN/HDBNC RM20-9034-E-DIN/HDBNC RM20-9035-E-DIN/HDBNC RM20-9061-E-DIN/HDBNC RM20-9066-E-DIN/HDBNC	**Note:** • This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors. • This rear module mates to card in **ODD** slot.

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs		
1905D		RM20-9901-F-HV RM20-9921-F-HV RM20-9931-F-HV RM20-9985-F-HV	**Note:** • This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors. • This rear module mates to Fusion base card in **ODD** slot. Where an expansion (daughtercard) is used, it also **must** use an odd-slot expansion rear module.
1903		RM20-9901-H RM20-9921-H RM20-9931-H RM20-9985-H	RM20-9391-D RM20-9392-D **Note:** This rear module mates to Fusion base card in **ODD** slot. Where an expansion (daughtercard) is used, it also **must** use an odd-slot expansion rear module.
1907D		RM20-9901-F-HV2 RM20-9921-F-HV2 RM20-9931-F-HV2 RM20-9985-F-HV2	**Note:** • This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors. • This rear module is a replacement for RM20-99xx-F-HV. This rear module provides for enhanced airflow over card component-side of PCB.
1844D		RM20-9901-XF-HV RM20-9921-XF-HV RM20-9931-XF-HV RM20-9985-XF-HV	**Note:** • This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors. • This expansion rear module is intended for use in conjunction with base rear module RM20-99xx-F-HV2 (“1907D”) shown above.

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs	
1831DS		RM20-9241-D/S RM20-9242-D/S
1902DA		RM20-9083-E-DIN/HDBNC RM20-9085-E-DIN/HDBNC RM20-9301-D-DIN/HDBNC RM20-9323-E-DIN/HDBNC **Note:** • This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors. • This rear module mates to card in **ODD** slot.
1830		RM20-9231-B RM20-9232B RM20-9910AV-B RM20-9910WC-B
1830DS		RM20-9231-B/S-DIN/HDBNC RM20-9232-B/S-DIN/HDBNC RM20-9910AV-B/S-DIN/HDBNC RM20-9910WC-B/S-DIN/HDBNC **Note:** This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors.

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs
T6303A	RM20-9241-B RM20-9252-B
1950	RM20-9371-E RM20-9372-E RM20-9374-E Note: AES ports are GUI-configurable as inputs or outputs on 9371-EMDE card. AES ports and MADI ports are input-only on 9371-EM card and output-only on 9371-DE card.
1881	RM20-9901-G RM20-9921-G RM20-9931-G RM20-9985-G

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs	
1838		RM20-9901-F RM20-9921-F
1904		RM20-9901-J RM20-9921-J
1847		RM20-9322-G RM20-9323-K

RM20-9931-F	
RM20-9985-F	
RM20-9931-J	
RM20-9985-J	

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs		
1928		RM20-9902-F RM20-9922-F RM20-9934-F RM20-9940-F RM20-9978-F RM20-9980-F	
1913		RM20-9902-B RM20-9922-B RM20-9932-B	RM20-9934-B RM20-9960-B
1914		RM20-9902-C RM20-9922-C RM20-9940-C RM20-9960-C RM20-9978-C RM20-9980-C	
1919		RM20-9970-B RM20-9978-B RM20-9980-B	RM20-9902DC4K-C RM20-9940-G

Note: This rear I/O module can also be used with the following card models, however the COMM/GPIO connectors are NC when used with the following models.
9902-UDX, -2UDX, -UDX-FS, -UDX-DSP
9922-FS, -2FS
9960-TG2-REF1
9978-ANC-MON
9980-CSC-3G. -2CSC-3G

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs		
1923D		RM20-9970-C-DIN/HDBNC RM20-9978-C-DIN/HDBNC	**Note:** This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors.
1929D		RM20-9902-D-DIN/HDBNC RM20-9922-D-DIN/HDBNC RM20-9932-D-DIN/HDBNC RM20-9934-D-DIN/HDBNC	**Note:** This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors.
1924		RM20-9970-D RM20-9978-D	
1930D		RM20-9902-E-DIN/HDBNC RM20-9922-E-DIN/HDBNC RM20-9932-E-DIN/HDBNC RM20-9934-E-DIN/HDBNC	**Note:** This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors.

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Manufacturing Part Number-to-Card Rear I/O Module Cross-Reference (cont.)

Manufacturing PN	Rear I/O Module PNs		
1933D		RM20-9902-H-DIN/HDBNC RM20-9922-H-DIN/HDBNC RM20-9932-H-DIN/HDBNC RM20-9934-H-DIN/HDBNC	**Note:** This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors.
1934D		RM20-9902-K-DIN/HDBNC RM20-9922-K-DIN/HDBNC RM20-9932-K-DIN/HDBNC RM20-9934-K-DIN/HDBNC	**Note:** This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors.
1936D		RM20-9902-L-DIN/HDBNC RM20-9922-L-DIN/HDBNC RM20-9934-L-DIN/HDBNC	**Note:** This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors.
1937S		RM20-9902-A/S RM20-9922-A/S RM20-9934-A/S RM20-9940-A/S RM20-9960-A/S RM20-9978-A/S RM20-9980-A/S	

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Manufacturing PN	Rear I/O Module PNs		
1938DS		RM20-9902-M/S-DIN/HDBNC RM20-9922-M/S-DIN/HDBNC RM20-9934-M/S-DIN/HDBNC RM30-9940-B/S-DIN/HDBNC RM20-9978-G/S-DIN/HDBNC RM20-9980-G/S-DIN/HDBNC	**Note:** This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors.
1946		RM20-9410DA-EO-B-DIN/HDBNC RM20-9410DA-2EO-B-DIN/HDBNC RM20-9410DA-EOOE-B-DIN/HDBNC RM20-9410DA-OE-B-DIN/HDBNC RM20-9410DA-2OE-B-DIN/HDBNC	**Note:** • This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors. • Connector labeling and blindmate fiber ports are a function of card model. Refer to card web page rear module illustrations and descriptions for user connectorization. • This rear module mates to card in **ODD** slot.
1946S		RM20-9410DA-EO-B/S-DIN/HDBNC RM20-9410DA-2EO-B/S-DIN/HDBNC RM20-9410DA-EOOE-B/S-DIN/HDBNC RM20-9410DA-OE-B/S-DIN/HDBNC RM20-9410DA-2OE-B/S-DIN/HDBNC	**Note:** • This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors. • Connector labeling and blindmate fiber ports are a function of card model. Refer to card web page rear module illustrations and descriptions for user connectorization.

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Manufacturing PN	Rear I/O Module PNs

1947DS

RM20-9410DA-EO-C/S-DIN/HDBNC

RM20-9410DA-2EO-C/S-DIN/HDBNC

RM20-9410DA-EOOE-C/S-DIN/HDBNC

RM20-9410DA-OE-C/S-DIN/HDBNC

RM20-9410DA-2OE-C/S-DIN/HDBNC

Note: • This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors.

• Connector labeling and blindmate fiber ports are a function of card model. Refer to card web page rear module illustrations and descriptions for user connectorization.

1954D

RM20-9902-N-DIN/HDBNC

RM20-9922-N-DIN/HDBNC

RM20-9932-N-DIN/HDBNC

RM20-9934-N-DIN/HDBNC

RM20-9903-H-DIN/HDBNC

Note: This rear I/O module is available in both HD BNC and DIN 1.0/2.3 versions. If substituting, make certain module is equipped with compatible connectors.

1958D

COMM / GPIO PINOUTS

1 - *COM A_RX2 / 422(+)
2 - *COM A_TX2 / 422(+)
3 - GPI IN 5
4 - GPO OUT 2
5 - GND
6 - *COM A_RX1 / 422(-)
7 - *COM A_TX1 / 422(-)
8 - GPI IN 6
9 - GPO OUT 1
10 - GPI IN 4
11 - GPI IN 1
12 - GPI IN 2
13 - GPI IN 3
14 - NC
15 - NC

* Port can be GUI-configured as two RS-232 ports (Tx and Rx), or as RS-422 port.

RM20-9904-B-HDBNC

RM20-9905-B-HDBNC

RM20-9971-B-HDBNC

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Manufacturing PN	Rear I/O Module PNs
1959D	 RM20-9904-C-HDBNC RM20-9905-C-HDBNC RM20-9971-C-HDBNC
1962D	 RM20-9904-F-HDBNC RM20-9905-F-HDBNC
1117D	 RM20-9904-G-HDBNC RM20-9905-G-HDBNC **Note:** This rear I/O module mates to card in **odd** slot.

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Manufacturing PN	Rear I/O Module PNs

1107D

RM20-9904-D-HDBNC

RM20-9905-D-HDBNC

Note: • Due to the alignment of the host card and this rear module, the combination of the card and rear module will consume the adjacent odd frame slot in addition to the even slot occupied by the card.

• This rear module cannot be installed in frame slots 19/20 location. The host card, when installation is attempted, will clash/interfere with the frame network controller card.

1114D

RM20-9915-A-HDBNC

Note: This rear I/O module is used for all 9915DA models.

1964D

RM20-9941-24X24-A-HDBNC

RM20-9942-24X24-A-HDBNC

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