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1.0 Abstract:

This **Product Change Notice** details product enhancements and a model number change for the Positron FiberLine Isolator 5 and 8-card shelves.

2.0 Products:

FiberLine Isolator 8 card shelf Model **#751109/13 (CLEI Code NPMWS242RA)**

- is discontinued and replaced by the new version Model **# 751109/15 (CLEI Code NPMILNAARA)**, except where prior supply agreements apply.

FiberLine Isolator 5 card shelf Model **#751112/1 (CLEI Code NPMWB002MA)** is discontinued and replaced by the new version Model **# 751112/15 (CLEI Code NPMILPAARA)**, except where prior supply agreements apply.

3.0 Change Descriptions:

1. The cabling of the 8-card shelf (Model # 751109/15, **(CLEI Code NPMILNAARA)**) and the 5-card shelf (Model # 751112/15, **(CLEI Code NPMILPAARA)**) now conforms to the standard North American color code convention.
 - See Table 1 for new color coding of cable connections for the 8-card shelf Model # 751109/15, **(CLEI Code NPMILNAARA)**
 - See Table 2 for legacy color coding of cable connections for the 8-card shelf Model # 751109/13, **(CLEI Code NPMWS242RA)**
 - See Table 3 for new color coding of cable connections for the 5-card shelf Model # 751112/15, **(CLEI Code NPMILPAARA)**
 - See Table 4 for legacy color coding of cable connections for the 5-card shelf Model # 751112/1, **(CLEI Code NPMWB002MA)**
2. Both card shelves will now accept the new Power Supply plug-in module **Model #751318MC (CLEI Code NPPSFYDBAA)** with power specification of **120VAC/130VDC input to -48VDC output.**

4.0 Application Notes:

1. Both card-shelves are especially wired to provide Span Power for HDSL applications using the Positron plug-in power supply, **Model #751318MC (CLEI Code NPPSFYDBAA)**
 - The **Model # 751340SP (CLEI Code NPP1EWABAA)** HDSL and HDSL2 two-wire plug-in Isolator Module accepts the -48VDC output from the plug-in power supply (**Model # 751318MC, CLEI Code NPPSFYDBAA**). The -48VDC is stepped up to 120 VDC and super imposed across the station side Tip and Ring conductors, and is used to power the HDSL NTU (HTU-R or H2TU-R).
 - The **Model # 751339SP (CLEI Code NPP1GW0BAA)** HDSL, HDSL2 and HDSL4 four-wire plug-in Isolator Module accepts the -48VDC output from the plug-in power supply (**Model # 751318MC, CLEI Code NPPSFYDBAA**). The -48VDC is stepped up to 120 VDC and super imposed across the station side Tx and Rx pairs, and is used to power the HDSL NTU (HTU-R, H2TU-R or H4TU-R).

Benefit: Overall cost of the installation is reduced and simplified because the need for a dedicated power supply to drive the HDSL termination units is eliminated.
2. Both card-shelves are especially wired to provide Span Power for T-1 applications using the Positron plug-in power supply **Model # 751318MC (CLEI Code NPPSFYDBAA)**.
 - The **Model # 751329SP (CLEI Code NPP14S0BAA)** T-1 plug-in Isolator Module **accepts** the -48VDC output from the plug-in power supply (**Model # 751318MC, (CLEI Code NPPSFYDBAA)**). The -48VDC is super imposed across the station side Tx and Rx pairs, and is used to power the station-side T-1 NIU.

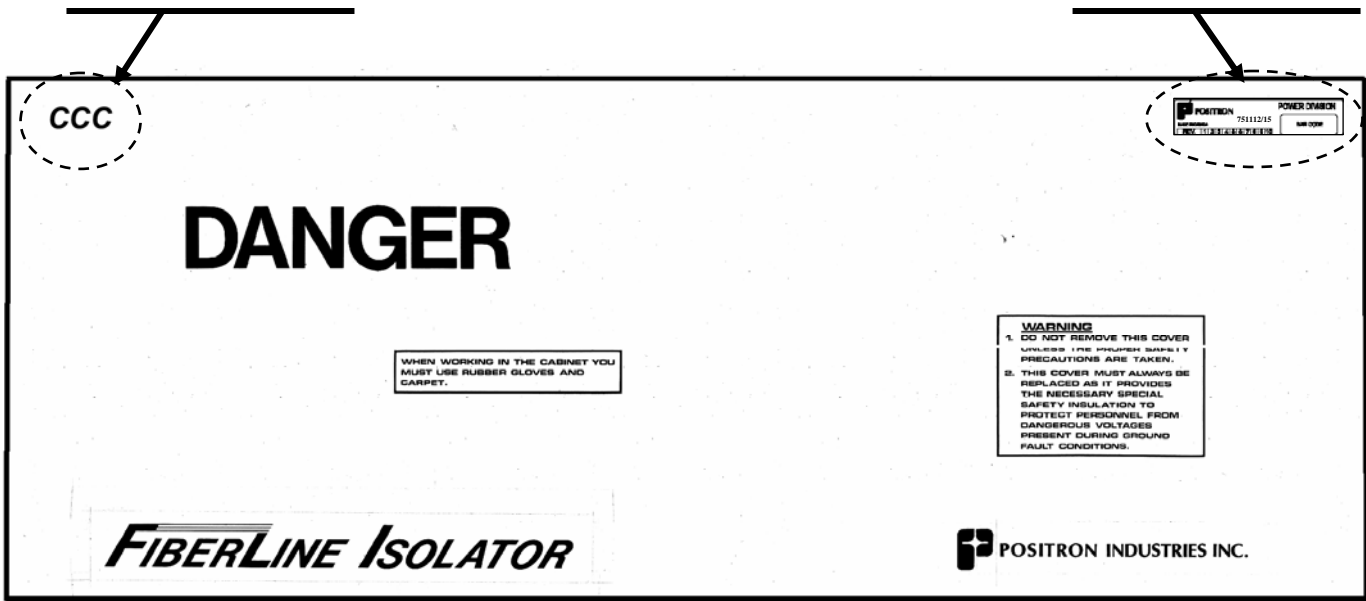
Benefit: Overall cost of the installation is reduced and simplified, because the need for a dedicated power supply to drive the T-1 NIU is eliminated.
3. The POTS Plus Isolator Module, **Model #751323 (CLEI Code NPP1ZP0BAA)** operates on -48VDC to ensure compatibility with all types of sensitive electronic telephones, and loop and ground start PBX's.

Previously, an ancillary -48VDC power supply was required to power the plug-in isolator. The Power Supply **Model # 751318MC (CLEI Code NPPSFYDBAA)** can be used in both the 5-card shelf (**Model # 751112/15 (CLEI Code NPMILPAARA)**) and 8 card shelf (**Model # 751109/15 (CLEI Code NPMILNAARA)**) to power the POTS Plus Isolator Module, **Model # 751323 (CLEI Code NPP1ZP0BAA)**.
4. Both the **Model # 751112/15 (CLEI Code NPMILPAARA)** 5-card shelf and the **Model # 751109/15 (CLEI Code NPMILNAARA)** 8- card shelf can accommodate two plug-in power supplies simultaneously, allowing both -24VDC and -48VDC outputs to power the concordant isolator modules. The following combinations are possible:
 - Qty 1 Model #751318MC (-48VDC O/P) alone (**CLEI Code NPPSFYDBAA**)
 - Qty 2 Model #751318MC (-48VDC O/P) (**CLEI Code NPPSFYDBAA**).
 - Qty 1 Model #751318MC (-48VDC O/P) (**CLEI Code NPPSFYDBAA**), with Qty 1 Model #751313MC (-24VDC O/P) (**CLEI Code NPPSFXCBAA**)
 - Qty 1 Model #751313MC (-24VDC O/P) alone (**CLEI Code NPPSFXCBAA**)
 - Qty 2 Model #751313MC (-24VDC O/P) (**CLEI Code NPPSFXCBAA**)
 - Qty 1 Model #751313MC (-24VDC O/P) (**CLEI Code NPPSFXCBAA**) with Qty 1 Model #751312 Battery Back-up module (**CLEI Code NPPSP431AA**)

5.0 Identification:

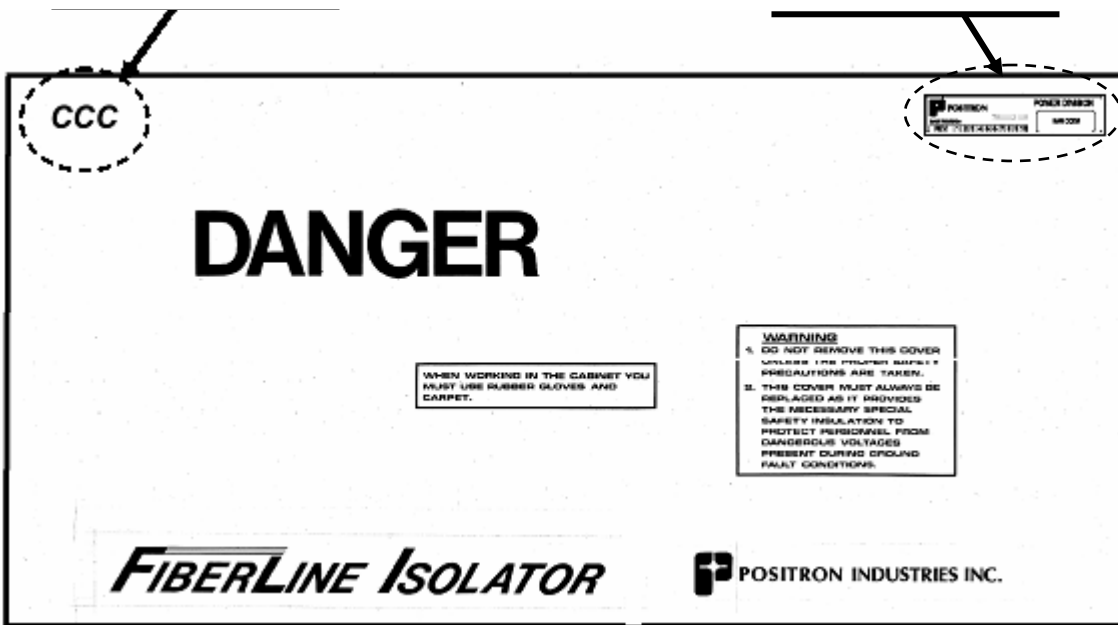
The cover of the 8-card shelf model number 751109/15 (CLEI Code NPMILNAARA) shows the marking "CCC" denoting "Conformal Color Coding" in the top left-hand corner.

The Product escutcheon label in the top right-hand corner shows the 8-card shelf model number 751109/15 (CLEI Code NPMILNAARA) and serial number.



The cover of the 5-card shelf model number 751112/15 (CLEI Code NPMILPAARA) shows the marking "CCC" denoting "Conformal Color Coding" in the top left-hand corner.

The Product escutcheon label in the top right-hand corner shows the 5-card shelf model number 751112/15 (CLEI Code NPMILPAARA) and serial number.



6.0 Wiring Tables

**Table 1: Wiring Color Coding of 8-card shelf, model #751109/15,
(CLEI Code NPMILNAARA)**

Slot #	Pair #	CO Cable			Station Cable		
		Wire Color	Label Designation	To Connector	Wire Color	Label Designation	To Connector
1	1	WHITE	T1	TB1-17	WHITE/BLUE	T1	TB1-18
		BLUE	R1	TB2-17	BLUE/WHITE	R1	TB2-18
	2	WHITE	TA	TB1-2	WHITE/ORANGE	TA	TB1-3
		ORANGE	RA	TB2-2	ORANGE/WHITE	RA	TB2-3
2	3	WHITE	T2	TB1-16	WHITE/GREEN	T2	TB1-17
		GREEN	R2	TB2-16	GREEN/WHITE	R2	TB2-17
	4	WHITE	TB	TB1-3	WHITE/BROWN	TB	TB1-4
		BROWN	RB	TB2-3	BROWN/WHITE	RB	TB2-4
3	5	WHITE	T3	TB1-15	WHITE/SLATE	T3	TB1-16
		SLATE	R3	TB2-15	SLATE/WHITE	R3	TB2-16
	6	RED	TC	TB1-4	RED/BLUE	TC	TB1-5
		BLUE	RC	TB2-4	BLUE/RED	RC	TB2-5
4	7	RED	T4	TB1-14	RED/ORANGE	T4	TB1-15
		ORANGE	R4	TB2-14	ORANGE/RED	R4	TB2-15
	8	RED	TD	TB1-5	RED/GREEN	TD	TB1-6
		GREEN	RD	TB2-5	GREEN/RED	RD	TB2-6
5	9	RED	T5	TB1-13	RED/BROWN	T5	TB1-14
		BROWN	R5	TB2-13	BROWN/RED	R5	TB2-14
	10	RED	TE	TB1-6	RED/SLATE	TE	TB1-7
		SLATE	RE	TB2-6	SLATE/RED	RE	TB2-7
6	11	BLACK	T6	TB1-12	BLACK/BLUE	T6	TB1-13
		BLUE	R6	TB2-12	BLUE/BLACK	R6	TB2-13
	12	BLACK	TF	TB1-7	BLACK/ORANGE	TF	TB1-8
		ORANGE	RF	TB2-7	ORANGE/BLACK	RF	TB2-8
7	13	BLACK	T7	TB1-11	BLACK/GREEN	T7	TB1-12
		GREEN	R7	TB2-11	GREEN/BLACK	R7	TB2-12
	14	BLACK	TH	TB1-8	BLACK/BROWN	TH	TB1-9
		BROWN	RH	TB2-8	BROWN/BLACK	RH	TB2-9
8	15	BLACK	T8	TB1-10	BLACK/SLATE	T8	TB1-11
		SLATE	R8	TB2-10	SLATE/BLACK	R8	TB2-11
	16	YELLOW	TJ	TB1-9	YELLOW/BLUE	TJ	TB1-10
		BLUE	RJ	TB2-9	BLUE/YELLOW	RJ	TB2-10
17		YELLOW			YELLOW/ORANGE		
		ORANGE			ORANGE/YELLOW		
18		YELLOW			YELLOW/GREEN	GND	TB1-2
		GREEN			GREEN/YELLOW	GND	TB1-2
19		YELLOW			YELLOW/BROWN		
		BROWN			BROWN/YELLOW		
20		YELLOW			YELLOW/SLATE	-24 Vdc	TB2-1
		SLATE			SLATE/YELLOW	-24 Vdc	TB2-1
21		VIOLET			VIOLET/BLUE		
		BLUE			BLUE/VIOLET		
22		VIOLET			VIOLET/ORANGE	-48 Vdc	TB2-2
		ORANGE			ORANGE/VIOLET	-48 Vdc	TB2-2
23		VIOLET			VIOLET/GREEN		
		GREEN			GREEN/VIOLET		
24		VIOLET			VIOLET/BROWN	AUX PWR	TB1-1
		BROWN			BROWN/VIOLET	AUX PWR	TB1-1
25		VIOLET	RMT GND	TB1-1	VIOLET/SLATE		
		SLATE	RMT GND	TB2-1	SLATE/VIOLET		

**Table 2: Wiring Color Coding of 8-card shelf, model #751109/13 (M.D.),
CLEI Code NPMWS242RA**

Shelf Slot	Label	Description	CO Cable with Color Coding		Station Cable with Color Coding	
			Connector Position	25-Pair Cable	Connector Position	25-Pair Cable
1	T1 R1	TIP 1 RING 1	TB1-17 TB2-17	White Blue	TB1-18 TB2-18	White/Blue Blue/White
2	T2 R2	TIP 2 RING 2	TB1-16 TB2-16	White Orange	TB1-17 TB2-17	White/Orange Orange/White
3	T3 R3	TIP 3 RING 3	TB1-15 TB2-15	White Green	TB1-16 TB2-16	White/Green Green/White
4	T4 R4	TIP 4 RING 4	TB1-14 TB2-14	White Brown	TB1-15 TB2-15	White/Brown Brown/White
5	T5 R5	TIP 5 RING 5	TB1-13 TB2-13	White Slate	TB1-14 TB2-14	White/Slate Slate/White
6	T6 R6	TIP 6 RING 6	TB1-12 TB2-12	Red Blue	TB1-13 TB2-13	Red/Blue Blue/Red
7	T7 R7	TIP 7 RING 7	TB1-11 TB2-11	Red Orange	TB1-12 TB2-12	Red/Orange Orange/Red
8	T8 R8	TIP 8 RING 8	TB1-10 TB2-10	Red Green	TB1-11 TB2-11	Red/Green Green/Red
1	TA RA	TIP 1 (2nd pair) RING 1 (2nd pair)	TB1-2 TB2-2	Red Brown	TB1-3 TB2-3	Red/Brown Brown/Red
2	TB RB	TIP 2 (2nd pair) RING 2 (2nd pair)	TB1-3 TB2-3	Red Slate	TB1-4 TB2-4	Red/Slate Slate/Red
3	TC RC	TIP 3 (2nd pair) RING 3 (2nd pair)	TB1-4 TB2-4	Black Blue	TB1-5 TB2-5	Black/Blue Blue/Black
4	TD RD	TIP 4 (2nd pair) RING 4 (2nd pair)	TB1-5 TB2-5	Black Orange	TB1-6 TB2-6	Black/Orange Orange/Black
5	TE RE	TIP 5 (2nd pair) RING 5 (2nd pair)	TB1-6 TB2-6	Black Green	TB1-7 TB2-7	Black/Green Green/Black
6	TF RF	TIP 6 (2nd pair) RING 6 (2nd pair)	TB1-7 TB2-7	Black Brown	TB1-8 TB2-8	Black/Brown Brown/Black
7	TH RH	TIP 7 (2nd pair) RING 7 (2nd pair)	TB1-8 TB2-8	Black Slate	TB1-9 TB2-9	Black/Slate Slate/Black
8	TJ RJ	TIP 8 (2nd pair) RING 8 (2nd pair)	TB1-9 TB2-9	Yellow Blue	TB1-10 TB2-10	Yellow/Blue Blue/Yellow
	RMT GND	REMOTE GROUND	TB1-1 TB2-1	Violet Slate	N/A N/A	N/A N/A
	GND GND RU GEN RU GEN -24V -24V -48V -48V	GROUND GROUND RING-UP GEN RING-UP GEN -24V SUPPLY -24V SUPPLY -48V SUPPLY -48V SUPPLY	N.A. N.A. N.A. N.A. N.A. N.A. N.A. N.A.	N.A. N.A. N.A. N.A. N.A. N.A. N.A. N.A.	TB1-2 TB1-2 TB1-1 TB1-1 TB2-1 TB2-1 TB2-2 TB2-2	Yellow/Green Green/Yellow Violet/Brown Brown/Violet Yellow/Slate Slate/Yellow Violet/Orange Orange/Violet

The pairs labelled from A to J are used only for the four-wire plug-in cards, model 7501-24, 751329 or 751339. The Ring-Up Generator line may be used to supply 130 V dc to the shelf.

**Table 3: Wiring Color Coding of 5-card shelf, model # 751112/15,
(CLEI Code NPMILPAARA)**

Slot #	Pair #	CO Cable			Station Cable		
		Wire Color	Label Designation	To Connector	Wire Color	Label Designation	To Connector
1	1	WHITE	T1	TB1-17	WHITE/BLUE	T1	TB1-18
		BLUE	R1	TB2-17	BLUE/WHITE	R1	TB2-18
	2	WHITE	TA	TB1-2	WHITE/ORANGE	TA	TB1-3
		ORANGE	RA	TB2-2	ORANGE/WHITE	RA	TB2-3
2	3	WHITE	T2	TB1-16	WHITE/GREEN	T2	TB1-17
		GREEN	R2	TB2-16	GREEN/WHITE	R2	TB2-17
	4	WHITE	TB	TB1-3	WHITE/BROWN	TB	TB1-4
		BROWN	RB	TB2-3	BROWN/WHITE	RB	TB2-4
3	5	WHITE	T3	TB1-15	WHITE/SLATE	T3	TB1-16
		SLATE	R3	TB2-15	SLATE/WHITE	R3	TB2-16
	6	RED	TC	TB1-4	RED/BLUE	TC	TB1-5
		BLUE	RC	TB2-4	BLUE/RED	RC	TB2-5
4	7	RED	T4	TB1-14	RED/ORANGE	T4	TB1-15
		ORANGE	R4	TB2-14	ORANGE/RED	R4	TB2-15
	8	RED	TD	TB1-5	RED/GREEN	TD	TB1-6
		GREEN	RD	TB2-5	GREEN/RED	RD	TB2-6
5	9	RED	T5	TB1-13	RED/BROWN	T5	TB1-14
		BROWN	R5	TB2-13	BROWN/RED	R5	TB2-14
	10	RED			RED/SLATE		
		SLATE			SLATE/RED		
	11	BLACK			BLACK/BLUE		
		BLUE			BLUE/BLACK		
	12	BLACK			BLACK/ORANGE		
		ORANGE			ORANGE/BLACK		
	13	BLACK			BLACK/GREEN		
		GREEN			GREEN/BLACK		
	14	BLACK			BLACK/BROWN		
		BROWN			BROWN/BLACK		
	15	BLACK			BLACK/SLATE		
		SLATE			SLATE/BLACK		
	16	YELLOW			YELLOW/BLUE		
		BLUE			BLUE/YELLOW		
	17	YELLOW			YELLOW/ORANGE		
		ORANGE			ORANGE/YELLOW		
	18	YELLOW			YELLOW/GREEN	GND	TB1-2
		GREEN			GREEN/YELLOW	GND	TB1-2
	19	YELLOW			YELLOW/BROWN		
		BROWN			BROWN/YELLOW		
	20	YELLOW			YELLOW/SLATE	-24 Vdc	TB2-1
		SLATE			SLATE/YELLOW	-24 Vdc	TB2-1
	21	VIOLET			VIOLET/BLUE		
		BLUE			BLUE/VIOLET		
	22	VIOLET			VIOLET/ORANGE	-48 Vdc	TB2-2
		ORANGE			ORANGE/VIOLET	-48 Vdc	TB2-2
	23	VIOLET			VIOLET/GREEN		
		GREEN			GREEN/VIOLET		
	24	VIOLET			VIOLET/BROWN	AUX PWR	TB1-1
		BROWN			BROWN/VIOLET	AUX PWR	TB1-1
	25	VIOLET	RMT GND	TB1-1	VIOLET/SLATE		
		SLATE	RMT GND	TB2-1	SLATE/VIOLET		

**Table 4: Wiring Color Coding of 5-card shelf, model #751112/1 (M.D.),
CLEI Code NPMWB002MA**

			CO Cable with Standard Color Coding		Station Cable with Standard Color Coding	
Shelf Slot	Label	Description	Connector Position	25-Pair Cable	Connector Position	25-Pair Cable
1	T1 R1	TIP 1 RING 1	TB1-17 TB2-17	White Blue	TB1-18 TB2-18	White/Blue Blue/White
2	T2 R2	TIP 2 RING 2	TB1-16 TB2-16	White Orange	TB1-17 TB2-17	White/Orange Orange/White
3	T3 R3	TIP 3 RING 3	TB1-15 TB2-15	White Green	TB1-16 TB2-16	White/Green Green/White
4	T4 R4	TIP 4 RING 4	TB1-14 TB2-14	White Brown	TB1-15 TB2-15	White/Brown Brown/White
5	T5 R5	TIP 5 RING 5	TB1-13 TB2-13	White Slate	TB1-14 TB2-14	White/Slate Slate/White
			Unused Unused	Red Blue	Unused Unused	Red/Blue Blue/Red
			Unused Unused	Red Orange	Unused Unused	Red/Orange Orange/Red
			Unused Unused	Red Green	Unused Unused	Red/Green Green/Red
1	TA RA	TIP 1 (2nd pair) RING 1 (2nd pair)	TB1-2 TB2-2	Red Brown	TB1-3 TB2-3	Red/Brown Brown/Red
2	TB RB	TIP 2 (2nd pair) RING 2 (2nd pair)	TB1-3 TB2-3	Red Slate	TB1-4 TB2-4	Red/Slate Slate/Red
3	TC RC	TIP 3 (2nd pair) RING 3 (2nd pair)	TB1-4 TB2-4	Black Blue	TB1-5 TB2-5	Black/Blue Blue/Black
4	TD RD	TIP 4 (2nd pair) RING 4 (2nd pair)	TB1-5 TB2-5	Black Orange	TB1-6 TB2-6	Black/Orange Orange/Black
5	TE RE	TIP 5 (2nd pair) RING 5 (2nd pair)	TB1-6 TB2-6	Black Green	TB1-7 TB2-7	Black/Green Green/Black
			Unused Unused	Black Brown	Unused Unused	Black/Brown Brown/Black
			Unused Unused	Black Slate	Unused Unused	Black/Slate Slate/Black
			Unused Unused	Yellow Blue	Unused Unused	Yellow/Blue Blue/Yellow
	RMT GND	REMOTE GROUND	TB1-1	Violet	N/A	N/A
	RMT GND	REMOTE GROUND	TB2-1	Slate	N/A	N/A
	GND	GROUND	N.A.	N.A.	TB1-2	Yellow/Green
	GND	GROUND	N.A.	N.A.	TB1-2	Green/Yellow
	RU GEN	RING-UP GEN	N.A.	N.A.	TB1-1	Violet/Brown
	RU GEN	RING-UP GEN	N.A.	N.A.	TB1-1	Brown/Violet
	-24V	-24V Supply	N.A.	N.A.	TB2-1	Yellow/Slate
	-24V	-24V Supply	N.A.	N.A.	TB2-1	Slate/Yellow
	-48V	-48V Supply	N.A.	N.A.	TB2-2	Violet/Orange
	-48V	-48V Supply	N.A.	N.A.	TB2-2	Orange/Violet

The pairs labelled from A to E are used only for the four-wire plug-in cards, model 7501-24, 751329 or 751339. The Ring-Up Generator line may be used to supply 130 V dc to the shelf.

7.0 Schedule

A) The following Teleline Isolator shelves will be available **March 31, 2010**:

- **Model s 751109/15 (CLEI Code NPMILNAARA)**
 - 8 card shelf with Span Power Capability
- **Model # 751112/15 (CLEI Code NPMILPAARA)**
 - 5 card shelf with Span Power Capability

b) The following Teleline Isolator plug-ins are available now:

- **Model # 751340SP (CLEI Code NPP1EWABAA):**
 - HDSL and HDSL2 two-wire plug-in Isolator Module
- **Model # 751339SP (CLEI Code NPP1GW0BAA):**
 - HDSL, HDSL2 and HDSL4 four-wire plug-in Isolator Module
- **Model # 751329SP (CLEI Code NPP14S0BAA):**
 - T-1 plug-in Isolator Module

C) The following Teleline Isolator Power Supply (120VAC/130VDC to -48VDC) is available now:

- **Model # 751318MC (CLEI Code NPPSFYDBAA)**

8.0 Contact Information

For further information, please contact your local sales representative, or:

Don Sesia, Product Manager

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