IBM Sales Manual (US) - Document 5299-003

5299-003 IBM Terminal Multiconnector and Twinax-to-Telephone Twisted Pair Adapter (TTPA) Model 003

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1 IBM U.S. Product Life Cycle Dates

Type	Model	Announced	Available	Marketing Withdrawn	Replaced By
5299-003		1987/10/20	1987/10/20	1998/02/25	7299-1PA

2 Abstract

The 5299 is a Twinax-to-Telephone Twisted Pair adapter (TTP) which connects a 5250 type terminal to S/36, S/38, or AS/400 mid-range computers and 5294, 5394 or 5494 Remote Control Units using Telephone Twisted Pair (TTP) and TTPA.

Model Abstract 5299-003

(For IBM US, No Longer Available as of February 25, 1998)

The 5299 Terminal Multiconnector provides an alternative to the current twinax wiring method of connecting 5250 type terminals to S/36, S/38, or AS/400 mid-range computers and to 5294, 5394 or 5494 Remote Control Units. The 5299 and the Twinax-to-Telephone Twisted Pair Adapter (TTPA) allow the terminal-to-host connection to be made using telephone twisted pair (TTP) that meets the IBM Type 3 Media specifications.

3 Highlights

- Alternative to current twinax wiring
- Allows utilization of unused twisted pair wires
- Allows 5250 type data signals to be transmitted over TTP

4 Description

The 5299 Terminal Multiconnector provides an alternative to the current twinax wiring method of connecting 5250 type terminals to S/36, S/38, or AS/400 mid-range computers and to 5294, 5394 or 5494 Remote Control Units.

The 5299 and the Twinax-to-Telephone Twisted Pair Adapter (TTPA) allow the terminal-to-host connection to be made using telephone twisted pair (TTP) that meets the IBM Type 3 Media specifications.

The ability to use the 5299 and TTPA's with the S/36, S/38, or AS/400 mid-range computers and 5294, 5394 or 5494 Remote Control Units provides for reduced cabling cost, greater cabling flexibility, and facilitates installation and subsequent relocation.

Model Description 5299-003

The model 003 has 10 six-pin telephone connectors, 7 workstation connections, 1 host system connection, and 2 passthru jacks.

5 Model

5.1 Model Summary Matrix

Model	Telephone Connectors	Workstation Connections	Host System Connection	Passthru Jacks
003	10 six-pin Modular	7	1	2

6 Maximum

Not available.

7 Customer Setup (CSU)

Yes, the 5299 is a customer set up unit. Before installing the data network configuration, a site inspection is needed to determine if the existing twisted pair wiring is usable or must be altered. Detailed guidelines in the "IBM 5299-3 Multiconnector Planning, Setup, and Maintenance Guide" (GA27-3749) are included with each unit.

The areas that should be inspected are wiring closet(s), workstation and host system areas, and telephone wiring. The assistance of a qualified designer, installer, or telephony consultant may be required during the inspection.

8 Devices Supported

The following devices will be supported for connection to the 5299 Model 3:

DISPLAYS	**PRINTERS**
3179-002	3812
3180-002	4210
3196	4214
3197	4224 - 101,102,1E2,1C2
5251-011	4230 Matrix Printer Models 101, 1I1, 1S2, 102, 4S3, 4I3
5291	4247 Serial Matrix Printer Model 001 and 002
IBM PC with Enhanced 5250 Emulator	4234
	5219 - D01,D02
	5224
	5225
	5256
	5262 - 001
	6252 T Models
	6262 T Models
	6400 Line Matrix Printer All Models
	6408-CT0, CTA
	6412-CT0, CTA

The 5299 has a similar physical appearance as the 3299 Model 3 used with 3270 coaxial terminals.

The front panel has 10, six-pin modular telephone connectors, enabling seven workstation connections, 1 host system connection, and two passthru jacks (used for problem determination procedures only)

Workstations can be wired to the host as follows:

1. TTP

The maximum cable run-length for the host system to any workstation is 304.8 meters (1,000 feet).

2. Twinaxial Cable (Host to 5299 via twinax and 5299 to Workstation via TTP)

   The host to any workstation maximum length is increased in this case to 609.7m (2,000 ft.).

3. Point-to-Point using TTP

   The maximum cable run-length from host to workstation is 365.8m (1,200 ft.).

The 5299 can coexist on the same system with twinax or IBM Cabling System wired terminals attached to another system port.

The 5299 can be rack mounted using the same IBM accessory hardware presently available to rack mount 3299 Model 3 Units.

The 5299 is passive, so it does not require any power.

IBM maintenance service is available on the 5299 under the IBM Customer Agreement after the five-year warranty expires. Contact your IBM branch office for details.

9 Model Conversions

Not available.

10 Technical Description

11 Physical Specifications

- Width: 33.7cm (13.28 in.)
- Depth: 19.1cm (7.53 in.)
- Height: 7.3cm (2.87 in.)
- Weight: 2.7kg (2.0 lbs.)

12 Operating Environment

ENVIRONMENT, OPERATING:

- Temperature 10.0(deg) to 40.0(deg)C (1) (50(deg) to 104(deg)F)
- Rel Humidity 8% to 80% (2)
- Max Wet Bulb 27.0(deg)C (3) (80.6(deg)F)

ENVIRONMENT, NONOPERATING:

- Temperature 10.0(deg) to 52.0(deg)C (1) (50(deg) to 125.6(deg)F)
- Rel Humidity 8% to 80%
- Max Wet Bulb 27.0(deg)C (3) (80.6(deg)F)

ENVIRONMENT, STORAGE:

- Temperature 1.0(deg) to 60.0(deg)C (33.8(deg) to 140(deg)F)

- Rel Humidity 5% to 80%
- Max Wet Bulb 29.0(deg)C (84.2(deg)F)

ENVIRONMENT, SHIPPING:

- Temperature -40.0(deg) to 60.0(deg)C (-40(deg) to 140(deg)F)
- Rel Humidity 5% to 100% (including condensation, excluding rain)
- Max Wet Bulb 29.0(deg)C (84.2(deg)F)

NOTES:

1. The upper limit of dry bulb temperature should be reduced by 1.0(deg)C for every 137 m (449.5 ft) of elevation above 914 m (3002.1 ft).
2. The lower limit of relative humidity for paper-handling is 20%.
3. The upper limit of wet-bulb temperature should be reduced by 1.0(deg)C per 274 m (899 ft) of elevation above 305 m (1000 ft).

13 Limitations

To use only telephone cable, you must not exceed any of the following conditions for maximum cable run-length:

1. From host system to an workstation: 304.8m (1,000 ft)
2. From host system to 5299: 304.8m (1,000 ft)
3. From 5299 to any workstation: 304.8m (1,000 ft)

The following greater distances can be achieved if twinaxial cable is used to connect the host system to the 5299 but must not exceed any of these three conditions for maximum cable run-length:

1. From host system to any workstation: 609.7m (2,000 ft)
2. From host system to 5299: 609.7m (2,000 ft)
3. From 5299 to any workstation: 274.3m (900 ft)

Prerequisites:

The 5299 requires the appropriate number of TTPAs to connect up to seven workstations and one host system. A Device TTPA is required for each workstation as is a Host TTPA for the host port interconnected with TTP.

Cable Orders:

Customer must order distribution cords, such as the AT&T part number DW4A-SE or its equivalent, to connect the 5299-3 to the telephone wiring. The six-pin modular plug on this cord plugs into any of the modular jacks on the 5299. The other end of the cord is attached to a type 66 connecting block.

Problem Determination:

The "IBM 5299 Terminal Multiconnector Model 3 Planning, Setup, and Maintenance Guide" (GA27-3749) contains problem determination procedures to assist the user in isolating the defective component of the network.

The major components of the network are:

- 5299
- TTPA
- Workstation
- Host system
- Telephone twisted pair wiring

The customer is responsible for taking the appropriate action to resolve the problem to the failing component.

Packaging:

- Ship Group Terminal Multiconnector P/N 69X8094
- Planning, Setup and Maintenance Guide GA27-3749
- IBM Limited Warranty Exhibit Z125-3744

14 Hardware Requirements

The 5299 works with the S/36, S/38, or AS/400 connecting the displays and printers listed in the description. Up to seven workstations can be connected to each 5299. Only one 5299 can be attached to each S/36, S/38, AS/400, 5294, 5394 or 5494 twinaxial port.

15 Software Requirements

None.

16 Publications

The following publications are available to VARS for purchase through Mechanicsburg. To order contact your IBM Marketing Representative.

- GA27-3749 IBM 5299 Terminal Multiconnector Model 3 Planning, Setup, and Maintenance Guide

For a current list of publications, refer to the appropriate publications option on your respective HONE system, or contact your local IBM representative.

17 Features – Specify/Special/Exchange

17.1 No Charge Specify Codes

None.

17.2 Special Feature Codes – Chargeable

None.

18 Feature Exchanges

None.

19 Accessories

There are two accessory adapters required for a 5299-to-telephone twisted pair (TTP) connection. Up to seven Device TTPAs connect the workstations to the TTP cables, and one host TTPA connects the host system port to the TTP cable. Each TTPA is 3 meters (9.8 ft) in length.

1. Device TTPAs (P/N 96X6187) for end-users can be purchased from IBM DIRECT. Call toll free at 1-800-IBM-2468. Mail orders should be sent to:
   - IBM Direct Response Operations
   - One Culver Road
   - Dayton, NJ 08810
2. Host TTPA (P/N 69X7883) for end-users can also be ordered from IBM DIRECT.

Minimum order quantity for both is one.

20 Customer Replacement Parts

None.

21 Machine Elements

None.

22 Supplies

None.

Diskettes

None.

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