

Nokia DYNANET

Data interface units



The Nokia DYNANET data interface units are designed to provide data interfaces to the 2048 kbit/s transmission systems. The core of Nokia DYNANET consists of primary multiplexing, digital branching and digital cross-connect equipment.

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Application areas

The Nokia DYNANET data interface units provide great flexibility in data transmission arrangements. The Nokia DYNANET data interface units can be used in most Nokia DYNANET products and they can freely be installed together with VF- and ISDN-channel units. Several low speed data units, also of different types, can be combined into one time slot. Furthermore, thanks to the dynamic characteristic of the Nokia DYNANET equipment, the allocation of data channels can be altered as required via the service interface both locally and remotely. The Nokia DYNANET data interface cards cover the most frequently used interfaces to data terminals and mainframes, i.e. V.35, V.11, V.24/V.28, X.21, Ethernet and G.703. The adaptation into the time slots of the 2048 kbit/s frame can be done using standard V.110 or X.58 adaptation or direct adaptation or also

with proprietary sampling schemes. In corporate networks it is possible to synchronise the 2048 kbit/s stream to an incoming 48 kbit/s, 56 kbit/s, 64 kbit/s or n x 64 kbit/s channel.

Slow and medium speed Nokia DYNANET data interface units

Low speed data signals up to 19.2 kbit/s, both asynchronous and synchronous, are transmitted effectively using Nokia DYNANET data interface units. These signals require only a part of the time slot in the 2 Mbit/s system, meaning that several data signals can be transmitted in a single 64 kbit/s channel. The data signals are independent of each other and can thus be directed to different sites.

High speed Nokia DYNANET data interface units

High speed data signals are transmitted

in digital systems utilising full time slots, or even by combining several time slots together. High speed data interface units enable synchronous 48, 56, 64 and nx64 kbit/s data transmission.

Configuration and Maintenance

Configuration and supervision of these data units can be done locally or remotely with a hand-held Nokia Service Terminal, or with Nokia network management system with the Nokia Service Terminal Emulator.

Technical Highlights

- Integrate into the DYNANET family
- Software-selectable interfaces
- Free time slot allocation
- Synchronous and/or asynchronous operation
- Compact construction

Product features

Data Rate	Interface type	Timing	Adaptation into the 2048 kbit/s signal	Time slot usage per interface	No. of Interfaces per unit	HW Code	SW Code	Notes
0...19,2k	V.24/V.28	Async.	Transition Coding or sampling +error filtering	1,2,4 or 8 bits	8	24021	24063	
0...19,2k and 48, 56, 64k	V.24/V.28	Sync. or Async.	V.110 (sync.)	1,2,4 or 8 bits	4	24020	24064	1)
0...19,2k	V.24/V.28	Sync. or Async.	X.58 (sync.) or V.14+X.58 (async.)	0.5, 1 or 2 time slots per 3-6 channel	6	21127	25470	2)
48...64k	V.35	Sync.	Direct	1 time slot	5	21126	25460	2)
48...64k	X.21	Sync.	Direct	1 time slot	5	21125	25450	2)
48...64k	V.11	Sync.	Direct	1 time slot	5	21122.6	25426	2)
48...64k	V.11	Sync.	Direct	1 time slot	10	21122.5	25425	
64kbit/s	G.703	Co/ contra	Direct	1 time slot	10	21120	25400	
nx64k	V.11/V.35/X.21	Sync.	Direct	n time slots	2	21124	25440	2)
nx64k	G.730 2Mbit/s		Direct	n time slots	1	24012/ 24013	24062	
nx64k	Ethernet 10Base-T		HDLC	n time slots	2	21133.01	25442.01	
nx64k	Ethernet 10Base-T with HUB		HDLC	n time slots	2x2	21133.02	25442.02	

1) Nokia Dynanet data interface unit 24020 supports also data rates 48, 56 and 64 kbit/s

2) Contains handshaking signals

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