

## C-20 video codec

PRELIMINARY



- MPEG-2 video codec for IP networks
- 2 to 15 Mbps encoding for PAL/NTSC
- Very low latency
- D1, 2/3D1, HD1 or CIF resolution at 25 fps
- In-band command and control
- Two-way audio, data and contact closures
- Very compact stand-alone or rack-mount

### Description

The C-20 is an MPEG-2 video codec for Fast Ethernet networks. The very low latency and full motion video of C-20 codecs realize the real-time performance needed in PTZ controlled video surveillance. The in-band control offers point-to-point or multicast video routing and other matrix switching functions. In combination with XSNet™ Ethernet, the C-20 codec offers redundant video networking solutions, covering large

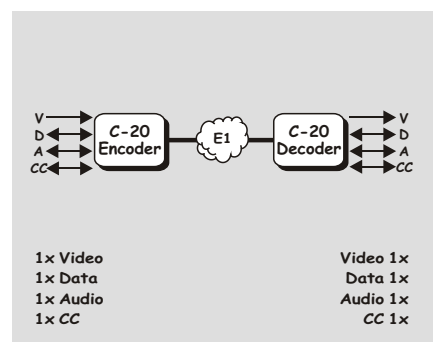
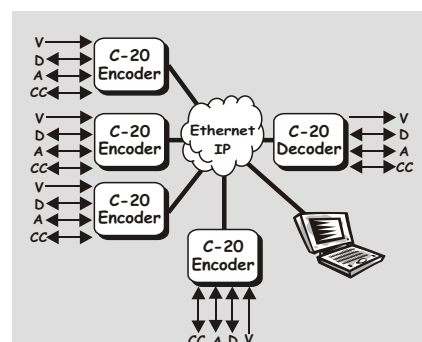
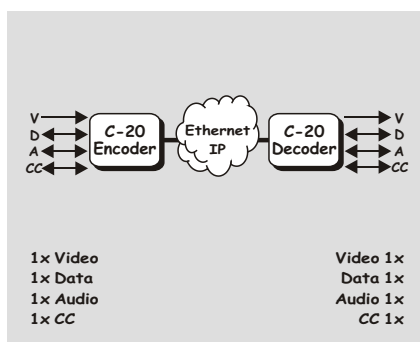
areas (MAN/WAN) with multiple locations and a very large number of cameras. The MPEG-2 video encoder can be set from 2 Mbps up to 15 Mbps at three different resolutions (D1, HD1 or CIF), offering dynamic bandwidth allocation and very efficient use of available transmission capacity. In addition to video, the system also offers 2-way audio, data and contact closures for e.g. emergency phone, PTZ

and alarm contacts. A client-server software engine gives the CCTV manufacturer full control of a C-20-based video network. C-20 codecs are also available for 2 Mbps G.703/704 (E1) networks. The MPEG-2 codec comes as a Eurocard module to be slotted into an NKF MC 11 power supply cabinet, or as a stand-alone unit (/SA version). All C-20 models are SNM™ compatible.

### Ordering information

Model	Description	Interface	Housing	SNM
C-20 E/IP	MPEG-2 video encoder for Ethernet networks	100BaseTX	rack-mount	yes
C-20 D/IP	MPEG-2 video decoder for Ethernet networks	100BaseTX	rack-mount	yes
C-20 E/E1	MPEG-2 video encoder for E1 networks	TP/COAX	rack-mount	yes
C-20 D/E1	MPEG-2 video decoder for E1 networks	TP/COAX	rack-mount	yes
C-20 /SA	Stand-alone versions of rack-mount models		stand-alone	yes

### Applications



## Technical Specifications

# C-20 video codec

### Video

Video format	PAL/NTSC	
In-/output level	1 V <sub>pp</sub> (±3 dB)	
Number of inputs	1	
Video connector	BNC 75	
Compression algorithm	MPEG-2	
Encoding/decoding latency	typically < 150 ms (low latency mode)	
Resolution (HxV)	<b>PAL</b>	<b>NTSC</b>
D1	720x576	720x480
2/3D1	480x576	480x480
HD1	352x576	352x480
CIF	352x288	352x240
Frame rate (PAL / NTSC)	25 / 30 fps	
Data rate	2 to 15 Mbps	

### Transmission interface

Number of interfaces	1
Interface	100Base-TX Fast Ethernet (E1 version: G.703/704)
Ethernet protocols	TCP, UDP, IP, DHCP, IGMP, ICMP, ARP, RTP
Connector	RJ-45 (E1 version: BNC)

### Audio

Number of channels	2 (full duplex)
Bandwidth	20 Hz to 7 kHz / 20kHz (sel.)
Sampling resolution	8/16-bits (selectable)
In-/output level	0 dBV (+6 dBV max)
Total harmonic distortion	< 0.25% at nom. level
SNR	> 75 dBA
Input impedance	> 50 k or 600 bal.
Output impedance	< 50 bal.
Connector type	RJ45

### Data

No. of channels	2 (full duplex)
Interfaces	1x RS-232 1x RS-422/485 (2- or 4-wire)
Format	Asynchronous, serial
Data rate	DC to 19.2 kbit/s
Sampling rate	153 ksamples/sec
Connector type	RJ45

### Contact Closure

Number of channels	2 (full duplex)
Input	+5 V pull-up, 10 k
Threshold	0.75 V
Output	Fail-safe, potential-free
Switch rating	2 A at 30 Vdc
Connector type	RJ45

### Powering

Rack-mount models  
/SA models

### Power supply unit

MC 11/EB-2  
PSA 12 DC-25, PSU 12 DC

### Power consumption

< 10 W

### Management

LED status indicators	
DC	Power good (green)
NV	No Video on in- or output (red)
LINK	Link (green)
Network Management	SNM compatible
SNM variables	Voltages, module temperature, module status, gateway, IP address, et al

### Environmental

Operating temperature range	-30 to 70°C
Relative humidity	< 95% (no cond.)

### Mechanical

Dimensions (hwxwd)	128 x 34 x 190 mm
Weight (approx.)	900 g