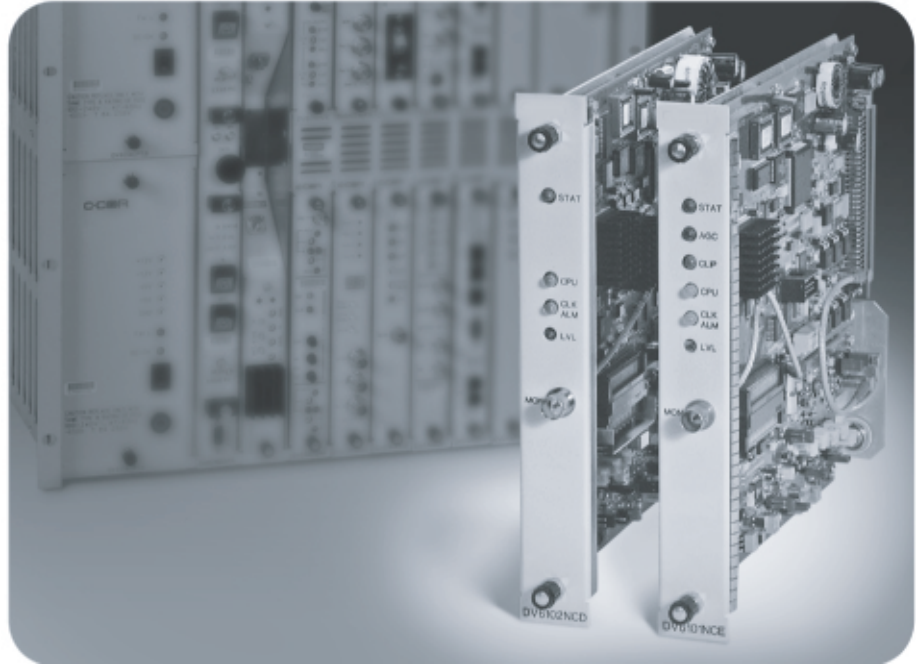


## NTSC Analog IF & QAM IF

### Interface Cards

DV6101NCE / DV6102NCD



- Compatible with DV6000, DV6400, and DV6300 chassis
- Digital Television & MPEG Applications
- Enables consolidation of network equipment
- Improves overall system reliability

ArTel introduces the DV6101NCE and DV6102NCD High Performance NTSC Intermediate Frequency Encoder and Decoder Interface cards for the DV6000 Product Family. The DV6101NCE and DV6102NCD plug into any encoder/decoder slot of a DV6000, DV6400, or DV6300 system to transport traditional analog Intermediate Frequency (IF) signals as well as digitally modulated signals.

#### Features

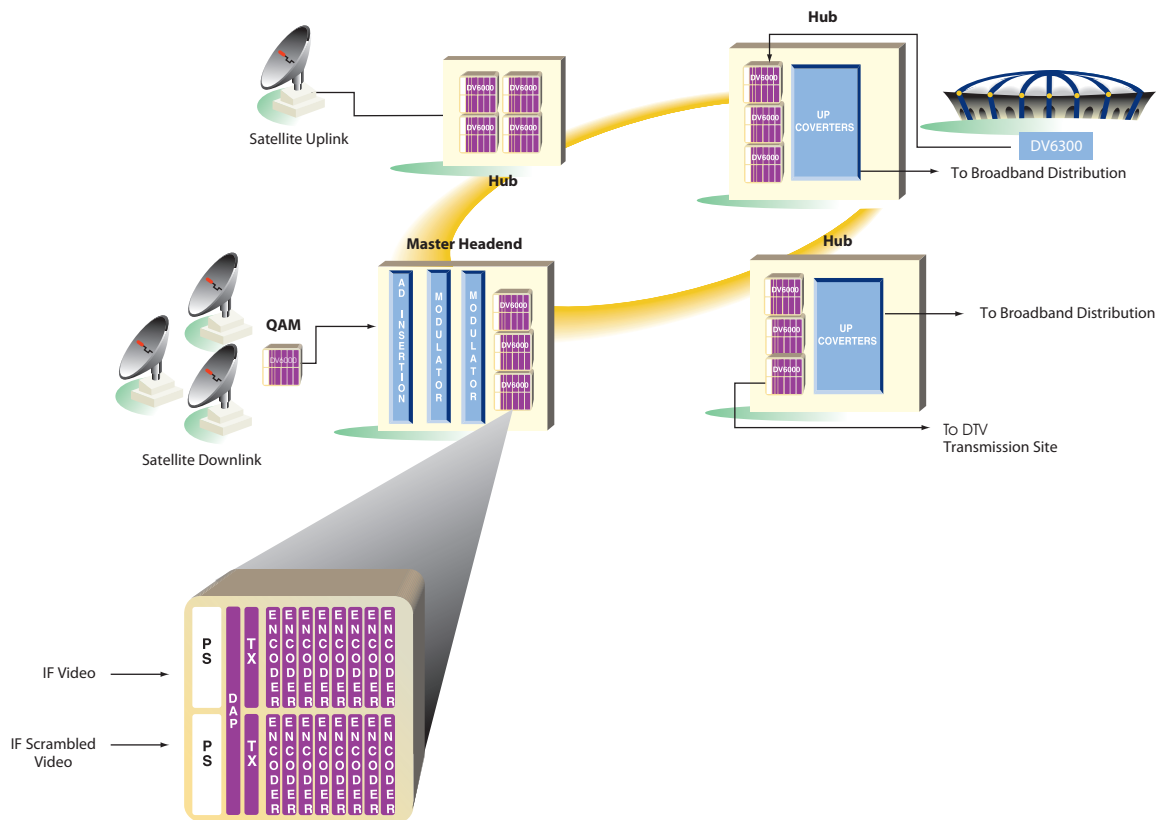
- Ideal for digital television and MPEG applications
  - 64-QAM and 256-QAM (44MHz CF)
  - 8VSB
  - Analog NTSC IF video only (45.75MHz carrier)
  - Analog NTSC IF with 1 analog audio or BTSC carrier at 41.25MHz
- Eliminates need for costly far end modulation equipment at remote sites
- Fully modular card fit any DV6000, DV6400, or DV6300 chassis
- Full remote monitoring and control via IMI-9000 Information & Monitoring Interface Software
- Automatic gain control

#### General Description

Optimized for the lossless transport of digitally modulated signals into the standard NTSC IF passband, the DV6000 High Performance IF Encoders and Decoders enable the consolidation of network equipment, offering significant overall systems savings. Additionally these IF cards are also adept at passing high performance analog signals.

## Applications

With the High Performance NTSC IF Modules for the DV6000 Product Family, high quality digital, as well as analog IF signals can be transparently and cost-effectively transported over hundreds of kilometers. Carrying modulated signals in their original format, the new IF encoder (DV6101NCE) and companion decoder (DV6102NCD) cards eliminate duplication of modulation equipment at every remote hub site and improve overall system reliability by interfacing directly to less expensive, less complex channel upconverters. Centralizing network elements such as MPEG encoders/decoders, video scramblers, QAM/VSB modulators, and other expensive signal processing equipment significantly reduces total system costs.



## Specifications

### General

Passband	41.00 to 46.75 MHz at $\pm 0.4$ dB
Bandwidth (-3dB)	40.90 to 46.90 MHz
Group Delay Ripple	20 ns p-p max
Phase Noise	
@ 100Hz Offset	$\leq -71$ dBc/Hz
@ 1kHz Offset	$\leq -91$ dBc/Hz
@ 10kHz Offset	$\leq -98$ dBc/Hz
@ 100kHz Offset	$\leq -110$ dBc/Hz
@ 1MHz Offset	$\leq -117$ dBc/Hz
In-Band/Out of Band Spurious	-71 dBc max

### Digital

Digital Input IF Signal Level	-23.0dBm to -5.0dBm @ 50 ohms -24.8dBm to -6.8dBm @ 75 ohms
Digital Output IF Signal Power Level	-24.75 dBm to -3.8dBm @ 75 ohms
64-QAM EVM Contribution	1.0% max
256-QAM EVM Contribution	1.0% max
8 VSB EVM Contribution	2.0% max

### Analog

Analog Input IF Signal Power Level	+24dBmV to +45 dBmV
Analog Output IF Signal Power Level	+30dBmV to +45 dBmV
CNR	57.5 dB min. (4.0MHz)
Video SNR	59 dB min.
Chroma/Luma Gain Inequality	$\pm 3\%$
Delay Inequality	$\pm 15$ ns max

### Physical

Dimensions (W x H x D), one DV6000 slot	1.19 x 7.75 x 9.14 in (3.02 x 19.69 x 23.22 cm)
Weight	< 4 lbs (< 1.8kg)
Power	< 14.5 Watts
Operating Temperature	32 to 122°F (0 to 50°C)
Storage Temperature	-40 to 158°F (-40 to 70°C)
Humidity	10 to 90%, noncondensing

Specifications subject to change without notice

## Ordering Information

---

Part Number	Description
DV6101NCE	NTSC IF encoder for analog IF, 64 QAM, 256 QAM, and 8 VSB applications
DV6102NCD	NTSC IF decoder for analog IF, 64 QAM, 256 QAM, and 8 VSB applications

---

---

Corporate Headquarters  
Artel Video Systems  
330 Codman Hill Road  
Boxborough, MA 01719  
T: 978.263.9958  
F: 978.263.9755

Contact Information  
Domestic Sales: [sales@artel.com](mailto:sales@artel.com)  
International Sales: [internationalsales@artel.com](mailto:internationalsales@artel.com)  
Technical Support: [customercare@artel.com](mailto:customercare@artel.com)  
[www.artel.com](http://www.artel.com)



**ARTEL**

ISO9001  
2000  
REGISTERED