



**Only for cars applications**

# *DSP NX*

**2 digital output signal processor**

- DATASHEET

WaveFlex-CarAudio  
(SIRET 790 097 539 000 15)

3, Impasse Uranus

31600 Muret

FRANCE

Email sales: [ventes@waveflex.fr](mailto:ventes@waveflex.fr)

Email support: [support@waveflex.fr](mailto:support@waveflex.fr)

Info Email: [contact@waveflex.fr](mailto:contact@waveflex.fr)

## **General description:**

- 1 digital input
- 1 digital output
- 32 bits floating point at 400 MHz DSP
- Isolated and delayed remote
- Isolated power supply
- USB 2.0 port for control
- Independent parametric equalizer on inputs
- Independent pass-band on each output
- Strong metal case

## **Technologies:**

- DSP Analog Device Sharc ADSP21369, 32 bits floating point, 400 MHz and 128 Mb of SDRAM, 2.4 GFLOPS
- Digital audio interface receiver, TI Burr Brown SRC4382 for signal up to 216 kHz
- DC-DC isolation for quiet operation

## **Features:**

- 6 bands parametric IIR equalizer on inputs (20hz to 20Khz with 1 Hz steps, 0.1 dBu steps, Q factor with 0.1 steps, type peak, high shelving, low shelving and Linkwitz transform + biquad programming)
- Compressor / limiter with Threshold, ratio, attack/release time
- Time alignment 0-3000 ms
- Phase polarity 0-180°
- +12 to -72 dBu attenuation on each input and output
- Muting and monitoring on each input and output
- FIR section with 6143 taps per canal in stereo mode or 12286 taps in mono mode (1 DSP NX per side)

## **Technical description:**

- Digital input
  - Type: SPDIF or AES/EBU (20 à 216 KHz stereo)
  - Optical Toslink, Coaxial RCA or XLR
  - Each circuit isolated by transformer
- Digital output
  - Type: SPDIF or AES/EBU (20 à 216 KHz stereo)
  - Optical Toslink, Coaxial RCA or XLR
  - Each circuit isolated by transformer
- System features
  - Sample rate: 48 KHz
  - Resolution: 32 bits floating point
- DSP:
  - Type: Analog devices Sharc ADSP21369
  - Maximal sample rate: Depends on selected software

Speed: 400 MHz  
SDRAM size: 128 Mb  
Precision: 32 bits

- Communication:

Type: USB 2.0 plug and play driverless  
Connector type: mini usb  
Compatibility: XP/Vista/7/MAC  
Software: Open-DRC 2x2 + Rephase (FIR coeffs generation)

- Power supply:

Type: PWM  
Maximal input voltage: +16 volts (minus to chassis ground)  
Efficiency: 95%  
Remote out output voltage: +12v  
Remote out maximal current: 0.1A  
Delayed remote out : > to 2 seconds  
Consumption: 12W@12V max

- Case:

Galvanized steel sheet 10/10 with grained powder paint  
Top plate: gloss black PMMA 5 mm thickness with CNC engraving  
Incrusted aluminium brushed letters

- Size: 226x165x52 mm

- Weight: 0.85 kg