

Features



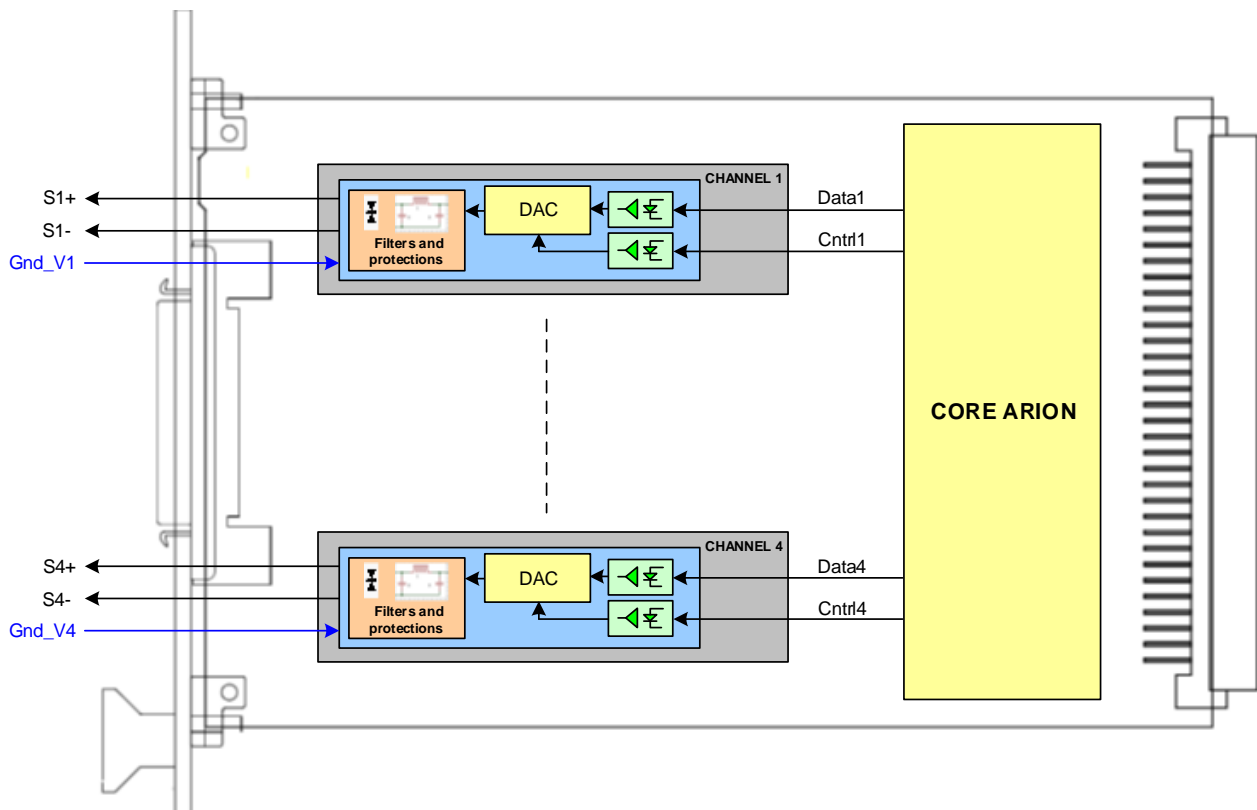
- 4 configurable outputs for arbitrary waveform generation (separated in 4 lanes on the board)
- Maximum signal definition :
  - Period point (Tpoint): 5.000 ns to (2<sup>16</sup> -1) ns
  - Number of points: 65534
  - Output level: -12V to 12V
- Sample Rate: 10 ns
- Maximum Jitter: 350 ns
- Maximum Output level: -12V to 12V
- Maximum Output noise level: ±150 mV
- Optically isolated: provides a direct connection to industrial equipments
- Common mode transient immunity of 100V/μs
- All outputs are protected from transient voltage spikes, short-circuits and overvoltage



Physical and environmental condition

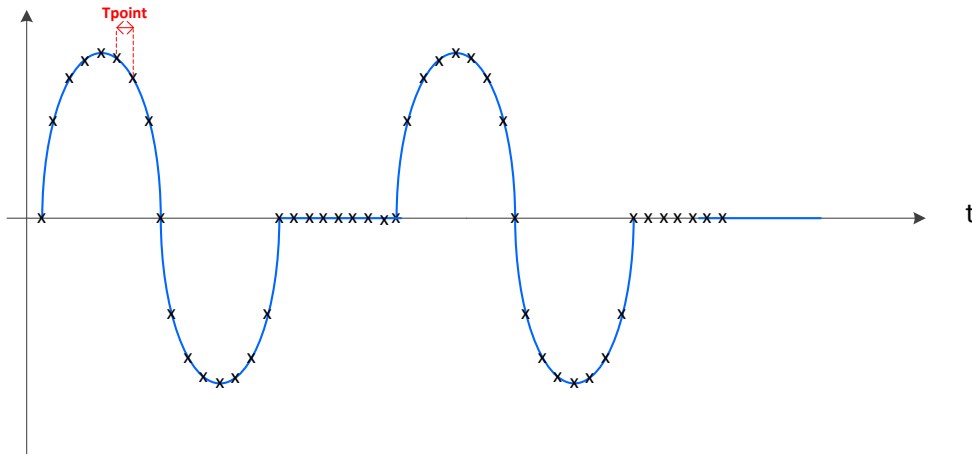
Dimensions: 3U format (length 160mm) x 3T  
 Temperature: Industrial range temperature -40°C / +85°C  
 Weight: 300g  
 Consumption: 700mA for analogical 5V line and 100mA for numerical 3.3V line

Block diagram



The arbitrary waveform is define in the configuration by this parameters:

- ✓ A regular period between all points' generations
- ✓ A number of points for the waveform
- ✓ A patterns table for points' levels



When the system is launched, user can dynamically set the Tpoint value between waveforms points with an Arion write() call.

**Data coding:** Unsigned Integer 32 bits

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Tpoint dynamic																															

**lsb value = 10 ns**

### Arion operating modes

Regarding the data of Arion-IO boards, two operating modes are available.

*These modes can ONLY be used in 'Global Channel'; See Configuration documentation for more information.*

**1. Cyclic mode:** *default mode*

On cyclic trigger, the data are set to the outputs of the board.

*Remark: The cyclic trigger is created by a configurable timer. This timer is set during the configuration step.*

**2. On demand:** *this mode is only available on Output Boards.*

The data are set to the outputs of the board when the user writes data.