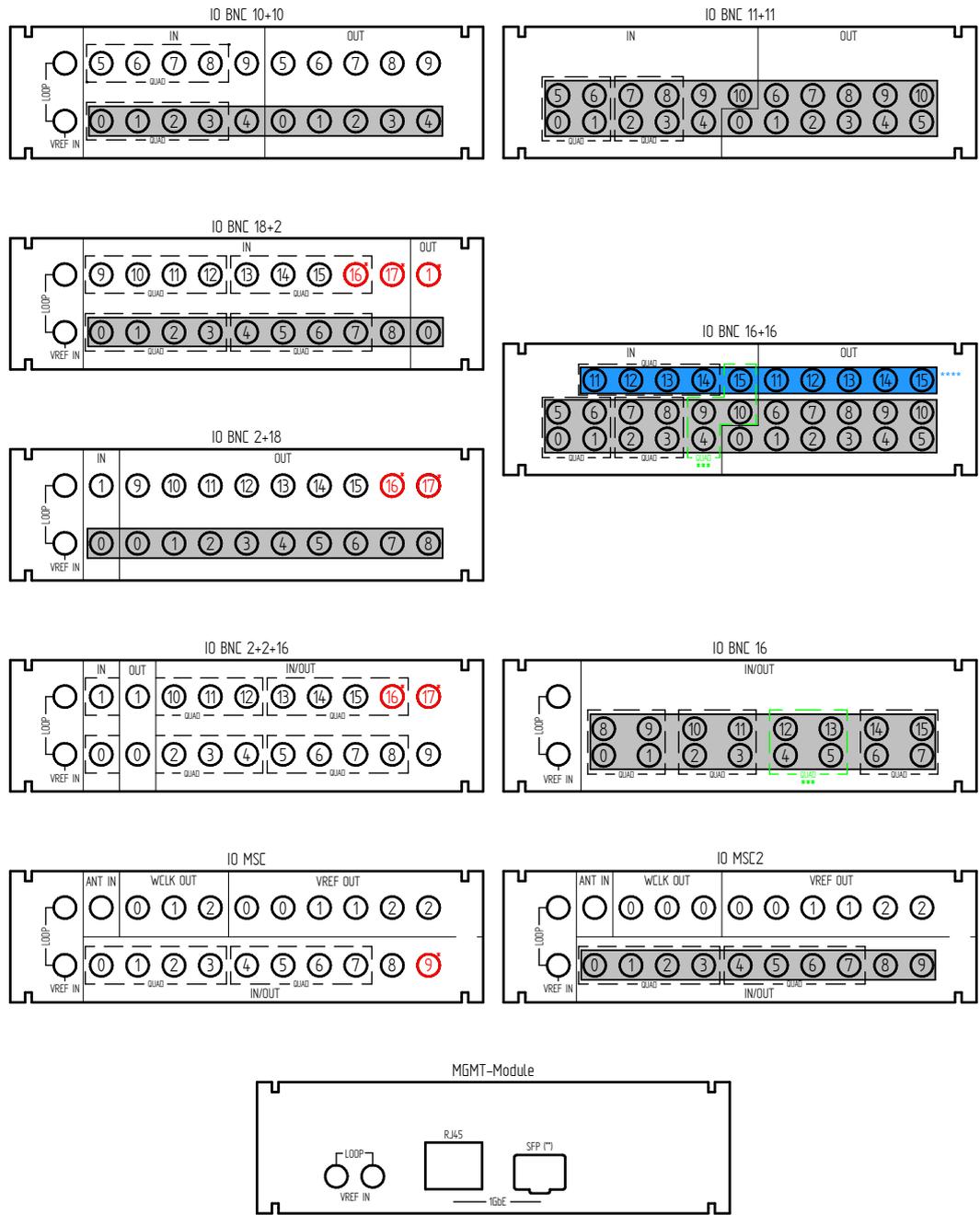


I/O-MODULES



\* not supported by AT300 \*\* requires DS1104 V1.0.4 or higher \*\*\* supported by AT300 only \*\*\*\* Up to 12G with AT300 only requires V2.6.x or higher Up to 12G

Figure 16 Overview IO Modules

### 3 RU

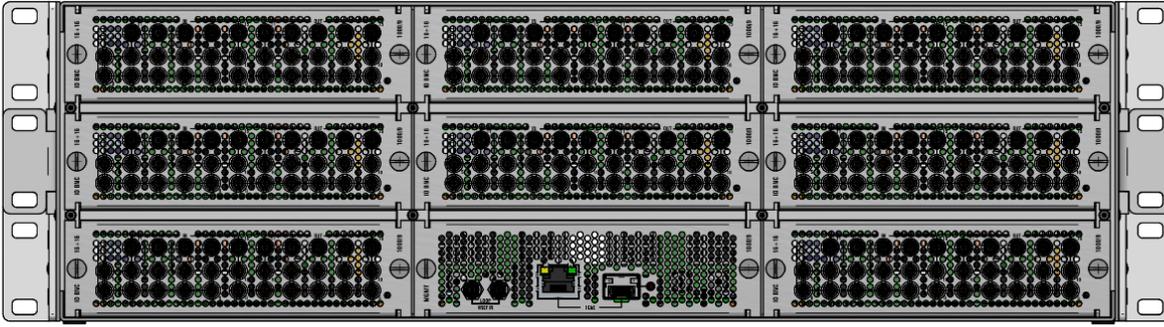


Figure 17 Frame 3RU

### 2 RU

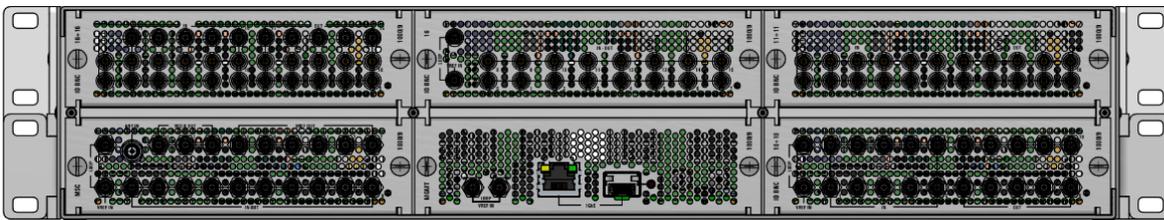


Figure 18 Frame 2RU

### 2 RU LN

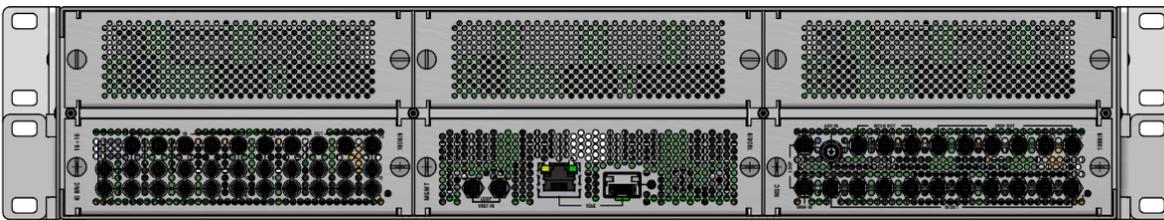


Figure 19 Frame 2RU\_LN

### 1 RU

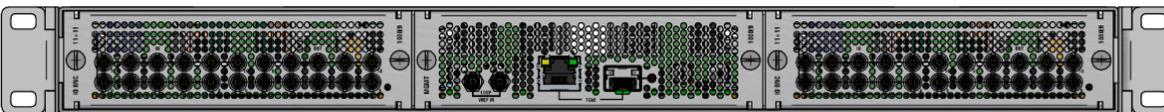


Figure 20 Frame 1RU



# Installation & Configuration

This chapter covers the hardware installation of **BLADE//runner** and the configuration of your control computer, network and other settings.

- **Environmental Data**
- **Computer System Requirements**
- **Installation Checklist**
- **QSFP28 Module Installation**
- **Frame Installation**
- **Blade Installation**
- **Grounding & Power**
- **Powering On**
- **Network Connection**
- **IP Configuration**
- **Default addresses**
- **Web Browser Control**
- **Troubleshooting the Connection**
- **Software Update**
- **Manual Configuration**
- **Scripted Configuration**
- **Telemetry package**

## Important notes

- **Packaging**

In case of further shipping or return shipping please ensure that frames are packed and shipped separately and AT300 processing blades/PSUs are packed and shipped separately using the original packaging or using custom specific built flight cases.

## Environmental Data

### IP Interfaces

<b>Gigabit Ethernet</b>	1x USB-C based Ethernet100/1000 front Mgmt + 1x RJ45/optical central Mgmt port
<b>2x 100GE Ethernet IEEE802.3</b>	2x QSFP28 (optical only)
<b>Protocols</b>	IPv4/IPv6; IEEE1588 PTPv2 (ordinary clock); IGMPv2&v3/MLD, tagged VLAN, multicast & unicast
<b>USB</b>	Serial Console port + USB-C port

### Indicators

<b>2x Power</b>	per power supply unit
<b>1x Status</b>	per blade AT300
<b>1x LED</b>	per QSFP28+ per blade AT300
<b>PPS</b>	via console port (requires special cable)

### Management and Monitoring

<b>Protocols</b>	HTTP(S), SNMPv2/3, Syslog, websocket/JSON, RESTful API, NMOS IS-04/IS-05, Ember+
<b>User interface</b>	Embedded HTML5 user interface
<b>Dedicated mgmt. port per module</b>	outband vs.inband management; guaranteed min.bandwidth for inband management/control egress; all parallel
<b>Dedicated mgmt. port per frame</b>	mgmt front port (USB-C) & mgmt rear port (RJ45/SFP+) through mgmt IO module

### Environmental Specifications

remark: many figures of instances are dependant of formats, of vm\_module and also configuration related

<b>Operating temperature</b>	FR_1RU / FR_2RU / FR_3RU 0°C - +35°C / +32°F - +95°F <sup>2,3</sup> FR_2RU_LN 0°C - +40°C / +32°F - +104°F <sup>2</sup>
<b>Storage temperature</b>	-20°C - +70°C

<sup>2</sup> 2 prerequisite airflow more than 52cbm/h per AT300 blade

<sup>3</sup> for extended temperature range up to +40°C, please use long air guide for AT300, not to be used in FR\_2RU\_LN