

Rev:A00

## Multi-Channel Precision DC Source

# MDCC3211A001A



The MDCC3211A001A, a high-precision DC Bias Generation Unit, has 32 single-ended SMA output channels and operates in two distinct modes: continuous mode and trigger mode. In continuous mode, the board generates constant voltage DC output, independent of external triggers. When operating in trigger mode, the unit receives an external trigger signal and responds by outputting a predefined voltage sequence. The MDCC3211A001A DC Bias Generation Unit is ideal for use in cryogenic quantum computing measurement and control, providing stable DC voltage bias signals for superconducting, silicon-based, or ion-trap quantum computing platforms. Its precision and reliability make it an essential component for accurate quantum measurements and control, ensuring stable and reliable operation of quantum computers.

### Technical requirements

Item	Specifications
Model	MDCC3211A001A
Number of channels	32
Output amplitude	±5V(1MΩ load)
Output coupling	DC
Vertical resolution	20bit
Noise spectral density	<10nV/√Hz
Overall stability	<5ppm/10h
Dimensional Information	443*452*45 (Excluding handle) 443*490*45 (Including handle)
Weight	6.5kg
Power	31.3W
Synchronous performance	Synchronization can be achieved between boards
Clock and Trigger	The system supports clock and trigger distribution
Control interface	1 Gigabit Ethernet port or 10 Gigabit Ethernet port