

Temperature Measurement inside INGA Module

The Temperature measurement inside the INGA module is accomplished by the Voltage reference chip ADR03BR, in order to measure the temperature inside the module and correlate the performances of various sub-circuits built in. This is required due to high density of electronic circuit, nearly dissipate 20Watts of DC power in quiescent state.

The pin readily available in this chip is accessed through a current protection resistor on the rear panel, and typical values measured with respect to analog ground of the NIM bin are as follows.

<i>Temperature</i>	<i>Cooling</i>	<i>Voltage measured</i>	<i>Observation</i>	<i>Observation</i>	<i>Time taken</i>
25 °C	No	552mV	LLTH:-200mV	WALK_ADJ..	0 Sec
52°C	No	605mV	LLTH:-200mV	Shifted UP (+)	50 Min.
36°C	Yes	573mV	LLTH:-200mV	Original value	15min.

The instrument cooling fan is operated in order to maintain the near room temperature for a temperature stable operation. Where, the ADR03 along with amplifier circuits (LT1361) provides an excellent thermal stable reference supplies (dual polarity) for LLTH, WALK ADJ. Settings, and other voltage controlled parameters such as P/Z Adj., BLR reference settings.