

# Pulse Instruments

## CUSTOMER QUESTIONNAIRE

### INFRARED DEVICE TEST SYSTEM CONFIGURATION

To configure an appropriate test system for your application there are key areas requiring definition. We will use the answers provided to the following questions as a guide to providing a test system configured to meet your present and future testing applications. All answers provided to the following questions will be held in strict confidence by Pulse Instruments.

**CUSTOMER:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

#### D) TEST APPLICATIONS

##### a) Focal Plane Array (Multiplexed Device):

- i) Size of the Array/Arrays (e.g. 128 x 128; 512 x 512 etc.): \_\_\_\_\_
- ii) Device package type: LCC \_\_\_\_\_ Other \_\_\_\_\_
- iii) Number of pins (e.g. 68, 84 etc.): \_\_\_\_\_
- iv) Number device of signal outputs per package (e.g. 1, 2, etc.): \_\_\_\_\_
- v) Output signal offset voltage: \_\_\_\_\_ Volts
- vi) Wavelengths of Interest:
  - (1) Short <2.5 um \_\_\_\_\_
  - (2) Medium 2.5 - 5.5 um \_\_\_\_\_
  - (3) Long 8.0 - 14.0 um \_\_\_\_\_
  - (4) XLong > 14 um \_\_\_\_\_
- vii) Clocking Frequency (Frequency of Reset Clock): \_\_\_\_\_

#### II) DEVICE TEST ENVIRONMENTAL CONDITIONS

##### a) Optical Stimulus Source

- i) Blackbody: Extended Source: \_\_\_\_\_ Point Source: \_\_\_\_\_
- ii) Temperature Range: 50 - 1000 C: \_\_\_\_\_ 50 - 1200 C: \_\_\_\_\_
- iii) Blackbody Cavity size: 0.50 inches: \_\_\_\_\_ 1.00 inches: \_\_\_\_\_
- iv) Apertures:
  - (1) Smallest aperture required for testing; \_\_\_\_\_ diameter
  - (2) Largest aperture required for testing; \_\_\_\_\_ diameter
- v) Filters required: Yes \_\_\_\_\_ No \_\_\_\_\_ Quantity: \_\_\_\_\_
- vi) Chopper: Number of Teeth: \_\_\_\_\_ Frequency: \_\_\_\_\_

##### b) Dewar Environment

- i) Device Temperature Range: \_\_\_\_\_

- ii) Device Temperature Stability: \_\_\_\_\_
- iii) Temperature Resolution: \_\_\_\_\_

**III) BASIC SYSTEM HARDWARE REQUIREMENTS**

**a) System Bias Supplies**

- i) Number of DC bias supplies per device \_\_\_\_\_
- ii) Maximum voltage range: +/- \_\_\_\_\_ V
- iii) Maximum current required per bias: \_\_\_\_\_ mA
- iv) Do all bias supplies need the above capability? Yes \_\_\_\_\_ No \_\_\_\_\_

**b) System Clock Drivers**

- i) Number of clock inputs per device \_\_\_\_\_
- ii) Maximum voltage levels +/- \_\_\_\_\_ V
- iii) Maximum clock amplitude (swing) \_\_\_\_\_ V
- iv) Clocking frequency required \_\_\_\_\_
- v) Minimum (fastest) rise/fall times required \_\_\_\_\_
- vi) Maximum (slowest) rise/fall times required \_\_\_\_\_

**c) Data Acquisition**

- i) Number of outputs: \_\_\_\_\_
- ii) Analog or digital outputs? \_\_\_\_\_
- iii) Pixel Data Rate (in Hertz): \_\_\_\_\_
- iv) A/D channels, type required:
  - (1) Number of bits: \_\_\_\_\_
  - (2) Fastest required digitization rate (Hz): \_\_\_\_\_
  - (3) Slowest required digitization rate (Hz): \_\_\_\_\_
- v) Gain Required (x100, x1000 etc.): \_\_\_\_\_

Thank you for answering the above questions. The above answers will be of significant help in configuring a system to meet your requirements.

Person to contact, if additional questions or clarification is required:

- Name: \_\_\_\_\_
- Email: \_\_\_\_\_
- Product Webpage: \_\_\_\_\_
- Telephone: \_\_\_\_\_
- Fax: \_\_\_\_\_