

**Tested By:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**ASC (WFS) Style Single Frequency Detector Measured Parameters**

All transimpedance measurements are referred to plane of the physical output connector and include the effect of the voltage divider created by the 50 Ω termination. The notch rejection ratios are relative to the magnitude of the transimpedance at the respective RF detection center frequency of the given RF output port. The notation, Q1 to Q4 refers to the specific quadrant of a four section (Quad) diode.

**Table 1: Identification**

<b>Unit identification</b>	<b>Value</b>
Photodetector serial number	
Detector schematic D# and revision	
Diode element manufacturer's Part and serial number	

**Table 2: Supply data**

<b>DC Parameters</b>	<b>Value</b>
Quiescent DC current (amps at +18 VDC)	
Quiescent DC current (amps at -18 VDC)	
PD bias regulator output voltage (VDC)	
RF opamp positive voltage regulator (VDC)	
RF opamp negative voltage regulator (VDC)	
Audio opamp positive voltage regulator (VDC)	
Audio opamp negative voltage regulator (VDC)	

**Table 3: DC outputs**

Quadrant number	DC readout transimpedance ( $\Omega$ at differential output)	Zero light DC offset (VDC)
Q1		
Q2		
Q3		
Q4		

**Table 4: Tuning**

Global RF parameters	Value
RF detection center frequency (MHz)	
$2\omega$ Notch frequency (MHz)	

**Table 5: Notch depth**

Quadrant number	Rejection at $2\omega$ notch, relative to center frequency response (dB)	DC photocurrent for notch measurement (mA)
Q1		
Q2		
Q3		
Q4		

**Table 6: Response at detection frequency**

Quadrant number	RF transimpedance (Ohms)
Q1	
Q2	
Q3	
Q4	

**Table 7: Output Noise at detection frequency (dark)**

RF Preamp Gain (dB)	
Quadrant number	Noise into 50 ohm (dBm/Hz)
Q1	
Q2	
Q3	
Q4	

**Table 8: Equivalent shot-noise limited DC photocurrent (calculated)**

Quadrant number	$I_{DC}$
Q1 (mA)	
Q2 (mA)	
Q3 (mA)	
Q4 (mA)	