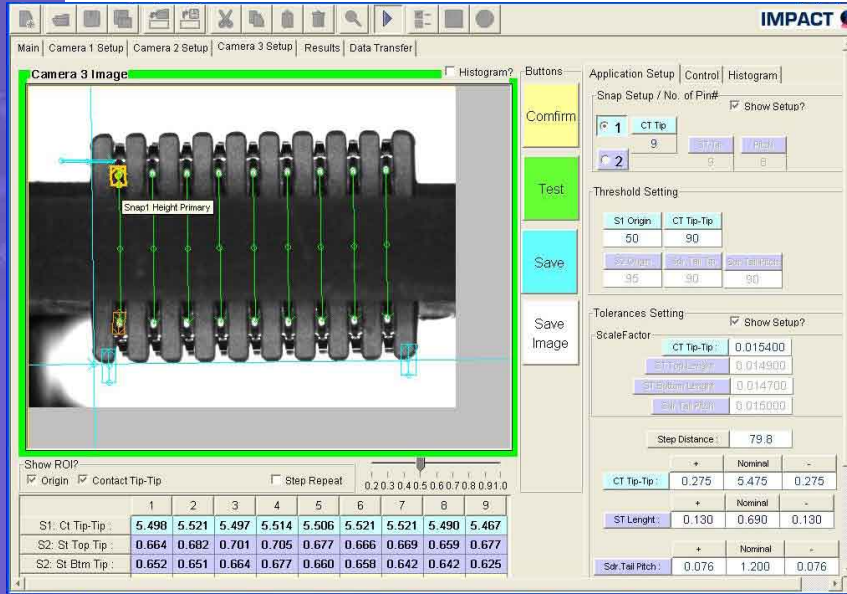


# APPLICATION NOTES

## IMPACT Solutions for Connector Assemblies

### One Camera Taking Two Different Images with Same Lights

#### First Image Taken with Both Lights On



Origin	1	2	3	4	5	6	7	8	9
S1: Ct Tip-Tip	5.498	5.521	5.497	5.514	5.506	5.521	5.521	5.490	5.467
S2: St Top Tip	0.664	0.682	0.701	0.705	0.677	0.666	0.669	0.659	0.677
S2: St Btm Tip	0.652	0.651	0.664	0.677	0.660	0.658	0.642	0.642	0.625

#### Application Description

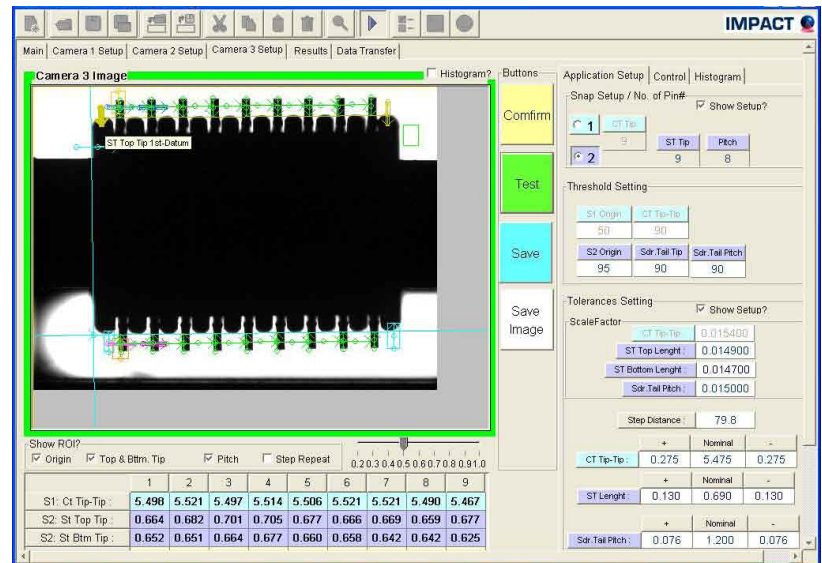
This application requires the vision system to measure the distances between the connector pin tips, as well as the solder tail lengths and pitches. In order to fulfill these requirements using only one camera, two different images need to be taken as the connector pin tips and the solder tails are located on different planes. Using a PPT 5200 camera, along with two LED lights (one back light and one front light), the camera takes the first image by strobing both lights simultaneously. The camera then moves towards the connector to focus on the solder tails before taking a second image. Only the back light is strobed when the

second image is taken. The IMPACT software offers the power and flexibility that allows the camera to acquire a second image with different light intensity. This flexibility makes it possible for the vision system to inspect and measure different features of the connector without using multiple cameras.

#### Application Highlights

- Measures tip to tip distances, solder tail lengths and pitches
- One camera inspects different features of the connector located on different planes
- Two images taken using the same lights strobed at different intensity levels
- Designed to accommodate a range of product types
- Low cost and Small foot print
- Easy setup using custom control panels

#### Second Image Taken With Back Light Only



Origin	1	2	3	4	5	6	7	8	9
S1: Ct Tip-Tip	5.498	5.521	5.497	5.514	5.506	5.521	5.521	5.490	5.467
S2: St Top Tip	0.664	0.682	0.701	0.705	0.677	0.666	0.669	0.659	0.677
S2: St Btm Tip	0.652	0.651	0.664	0.677	0.660	0.658	0.642	0.642	0.625