



Mobile Scanner Flex

BACKGROUND

Our customer is a leader in data collection and management solutions whose imaging products are used in mobile, POS, and ruggedized applications around the world. The mobile computing application shown is used in harsh environments inside and out and must withstand multiple drops onto concrete from six feet high.

PROBLEM

Current design requires a high reliability interconnect solution to connect the units docking connector to the main pcb board. Due to the small form factor and lightweight requirements of the unit, the internal packaging does not leave room for wiring. The assembly connects a docking connector in the base half of the enclosure to a pcb board in the top half while leaving a service loop to easily open the unit.

AIO SOLUTION

A flex circuit assembly is used to attach the docking connector and the board connector. The flexes ability to match the molded units form factor allows it to seat down in a well in the units enclosure out of the way when the unit is together while allowing the cover to be removed and rotated back out of the way for servicing. The flex solution weighs less than wire keeping the unit as light as possible. Other flexes are used in the unit to accommodate tight form factors. Note: The docking connector is also be crossed to provide an Amphenol brush solution to increase Amphenol content.

