



## SMALL BAR CODE LABELS CREATE BIG SAVINGS FOR CELLULAR PHONE MAKER

### OMNIPOINT CORP.

COLORADO SPRINGS, COLORADO



**industry**

MANUFACTURING – ELECTRONICS

**applications**

WORK-IN-PROCESS

**situation**

Omnipoint provides wireless personal communications and makes cellular phones and transmitters used in its wireless systems. The company holds FCC licenses to provide personal communications systems to a combined population of more than 40 million people. Omnipoint employs 550 people at five sites, including its development center in Colorado Springs, Colorado.

**critical issue**

Omnipoint was losing money during its production process because workers were putting the wrong circuit boards in cellular phones and transmitters. Also, Omnipoint was unable to track serial numbers to different pieces of equipment, especially cellular phones. This meant the company could not track customer warranties on cellular phones, nor could it conduct an efficient product recall if one became necessary.

**reasons**

Line workers could not manually mark the small circuit boards. Lacking a mechanism to keep track of the boards, they frequently would install the incorrect circuit board into the wrong model of cellular phone (Omnipoint makes four different phone models). It would have been impractical to ink stamp or hand mark the boards, because they were so small and delicate.

**vision & capabilities**

Omnipoint wanted a bar code printer capable of making very small, high resolution labels that would fit on the circuit boards. Also, the labels needed to be durable enough to withstand a wave solder bath that the boards undergo during production, while still maintaining clarity. With the bar code label in place on the board, workers could scan the boards to verify that the correct circuit board was about to be inserted into a phone or transmitter. Finally, Omnipoint wanted service personnel to be able to scan each phone's board if it was sent back for repairs.

**intermec solution**

Intermec supplied Omnipoint with the high resolution (406 dots per inch) MODEL 3240 Direct Thermal/Thermal Transfer Bar Code Printer, which is capable of printing labels as small as 0.1" by 0.1". Labels on the circuit board typically measure 0.25" by 1". Workers use Intermec's MODEL 1545 Laser Scanners to read bar code labels on the circuit boards in the assembly area. The 1545's are rugged enough to withstand the production environment, and provide quick label reads from up to 20 inches away.

**benefits**

Accuracy of circuit board placement has improved from 90% to 99+%, an improvement that will pay for the new bar code system in 9 to 12 months. Also, the company anticipates an improvement in customer service due to the new capability of creating repair histories for returned phones.