Valor MSS Material Verification

Manufacturing

Verify material setup, feeder positioning and MSD constraints



Valor MSS Material Verification controls the correct use of material on the shop floor and eliminates manufacturing errors by enforcing correct setups and change-overs, while enforcing regulations for moisture sensitive devices (MSD) and RoHS.

MAJOR BENEFITS:

 Lowers costs by reducing rework and scrapped material

DATASHEET

- Maximize utilization by reducing both setup time and setup errors
- Easy to learn and use with one platform used across different machine vendors types
- Preventative maintenance prompt improves line performance
- LED Light Class management and complex substitutions without program changes for compatibility
- Review verification data anywhere with Mobile option and a handheld PDA/scanner
- Save partially-used reels with full support for splicing verification on SMT machines
- Provides intelligent functionality without the use of intelligent feeders

Overview

With Valor[®] MSS Material Verification, production machines will not run until all material is correctly setup. Extensive capabilities such as blocking a feeder when an MSD-sensitive component has expired, or when a feeder needs maintenance, are included for all users.

Eliminate manufacturing errors by enforcing correct setups, change-overs, splicing, feeder positioning, MSD or RoHS constraints and feeder management. It includes guided set-up and verification for fixed feeders or off-line trolleys, with family setups. Advanced users can take advantage of support of LED light class binning and on-the-fly verification of variant setups.

Feeder Verification Levels

Feeder Verification assures that the correct setup is used on the SMT machines, and in other forms of assembly. The operator is prevented from using incorrect components or from loading the correct component into an incorrect feeder or installing the feeder into the wrong position on the machine or work cell. Incorrectly assembled products are prevented preserving product quality. Setup times or change-over times are reduced by a smart, guided process used by the machine operator so that machine utilization and performance are also improved.

Valor MSS Material Verification offers different levels of verification solutions that are optimized for the needs of the operation. Manual verification is for basic use without enforcement, while verification built on the MSS flexible and advanced machine interfaces provide closed loop forced control.



Manual Verification

This is an entry level solution used where component verification is the only focus area and where the security of using the system is fully based on operator interactions. Manual Verification displays setup information and errors to the operator but does not interface with an automated placement machine to stop the machine when a setup is incorrect. Manaul Verification is also used for off-line set-up verification, normally done on feeder trolleys, and for manual assembly stations.

Key Features

- Provides part verification based on operator initiative.
- Feeder validation assures correct feeder type is used.
- One hand held terminal can be used for verification across machines and lines.
- Off-line verification and manual assembly operations
- Logging all operator actions



Valor MSS Material Verification also has the option to display Low Level Warning for each feeder position keeping the operation informed at all times which feeder needs to be replenished next, and how many boards can be produced before the next feeder exhausts.

Automated Assembly Machines

Valor MSS Material Verification provides component verification on all placement machines including SMD machines, odd shape placement machines, placement machines for through-hole components, etc. This solution can also validate materials and tools used on screen printers, wave soldering machines, glue dispensers, etc.

Key Features

- Provides foolproof set-up and splicing verification on all SMD machines
- Provides closed loop materials and tools verification for Screen printers.
- Provides material count, with accurate part counts on each individual component reel, stick and tray
- Enables exact feedback of part consumption and attrition to ERP systems through an ERP interface on machines supported by an MSS advanced interface
- Allows alternate parts to be specified per product, per part number
- Feeder validation assures correct feeder type is used
- Traceability logging of all operator actions, machine, and system events
 - Provides Complex Substitution (i.e. LED light class control)
 - Provides Component Blocking and AVL control
 - Provides a feeder maintenance solution with full integration into the verification flow, preventing feeder usage in machines that are flagged for maintenance
 - Supports "Intelligent Feeder Function" on selected machine types supported by an MSS advanced machine interface
 - Stops the machine in case of incorrect, expired or blocked component

Verification on Turret Head Machines

For selected turret head machines the component verification solution gives Intelligent Feeder functionality on machines that do not support intelligent feeders. This provides a cost effective way of implementing an efficient solution for an operation that gives the maximum level of automated verification.

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