

## **Excerpt from Samuel Jackson's Comprehensive Moisture Control Specification for Cotton Gins**

### Section 4 – Communications

- 4.1 Local Ethernet communications between connected devices shall utilize CAT5E or CAT6 communication cable. Shielded cables are preferred and shall have their shield/drain wire connected at one end only.
- 4.2 CAT5E and CAT6 communication cables shall never run with other cables carrying more than 20mA or at a voltage greater than 24v AC or DC. Running CAT5E and CAT6 cables in their own metal conduit is preferred.
- 4.3 All CAT5E and CAT6 communications cables shall terminate at a central point.
- 4.4 Individual CAT5E and CAT6 cable lengths shall not exceed 300 feet.
- 4.5 There shall be no more than 4 network switches between any two devices and use of a single switch is strongly preferred.
- 4.6 All network switch ports shall be capable of speeds no less than 100 Mbps and will automatically adjust speed to match the connected device. All switch ports shall also employ auto-MDX to allow the use of both straight-through and crossover cables.
- 4.7 Routable IP addresses include any address not excluded below:  
  
10.0.0.0 – 10.255.255.255  
172.16.0.0 – 172.31.255.255  
192.168.0.0 – 192.168.255.255
- 4.8 The non-routable network space 10.52.18.0-10.52.18.255 (10.52.18.0/24) shall be reserved for use by products manufactured by Samuel Jackson, Inc.
- 4.9 The speed of the communication link between the gin and office, if such a link exists, shall be rated no less than 45 Mbps and shall bridge the two networks together (fiber, coax, twisted pair, or wireless methods are acceptable).
- 4.10 Remote Access Service requires a dedicated high-speed internet connection with a routable IP address provided by the internet service provider (ISP). This dedicated internet connection cannot be shared with the gin office.
- 4.11 Acceptable dedicated high-speed internet connection types shall include T1, Fiber, Cable, DSL, and Wireless services. Note that satellite internet is not acceptable due to high delay.
- 4.12 High-speed internet shall mean an internet connection with a download speed of no less than 512 kbps, an upload speed of no less than 512 kbps, and a maximum latency of 500 milliseconds as tested at [www.moisturemirror.com](http://www.moisturemirror.com) or [www.speedtest.net](http://www.speedtest.net). Internet connections with a download speed of 1.5 Mbps or more, an upload speed of 1.5 Mbps or more, and a latency of 200 milliseconds or less are strongly preferred.