



Summary of TPS-4000L architectural specifications are as follows: *(first 10 bullet-points are offered exclusively by Crestron for this category)*

- Touchpanel must have a minimum resolution of 640x480 pixels; lower resolutions shall not be accepted.
- Touchpanel shall have a 10.4" active matrix LCD display with 65,536-color palette and 16 bit non-palette graphics. Passive matrix displays or touch panels with less than a 64,000 color palette, and not supporting 16 bit non-palette graphics, shall not be accepted.
- Touchpanel and associated programming tools, by same manufacturer, shall provide a native/onboard graphic library supported by a Synapse image rendering algorithm feature, which shall provide for improved/high-resolution graphics (such as native anti-aliased 3D buttons, graphics, and text, with embossed, beveled and fringed features) without the aid of 3rd Party graphic development software.
- Touchpanel must support a minimum of 200 modes for each button.
Touchpanels with fewer than 200 modes available shall not be accepted.
- Touchpanel must support at least 4000 discrete button channels.
Touchpanels that do not support 4000 or more button channels shall not be accepted.
- Touchpanel must support memory of 8MB for flash and 8MB for DRAM.
Touchpanels supporting less than said memory shall not be accepted.
- Touchpanel must support graphic animation on a variety of object styles.
Touchpanels that are not capable of animation display shall not be accepted.
- Touchpanel shall have stereo audio input supporting balanced or unbalanced signal formats. Touchpanel shall allow line-level audio mixing, amplification, and volume control, with playback through built-in speakers.
Touchpanels that do not have built-in speakers and amplifier, or that do not allow line level audio input, shall not be accepted.
- Touchpanel shall have built-in microphone with line level balanced audio output.
- Touchpanel shall display NTSC/PAL/S-VIDEO video inputs. Video Input connections shall support balanced or unbalanced signal formats. Video inputs shall display full screen or in user defined windows (scaled video).
Touchpanels that do not provide true video scaling (i.e. cropped video) shall not be accepted.

- Touchpanel shall have five tactile buttons that are programmable and engraveable.
- Touchpanel shall be an integrated unit. A separate touchpanel interface box and touch display unit shall not be accepted.
- Touchpanel shall have the capability to store and play audio WAV files.
- Touchpanels that must connect to a dedicated lower-speed proprietary control system network in a master-slave configuration shall not be accepted.
- Touchpanel shall automatically detect/synch NTSC/PAL video formats. Touchpanels that require discrete selection of NTSC/PAL video inputs shall not be accepted.
- Touchpanel shall display S-VIDEO inputs separated into luminance and chrominance components. Touchpanels requiring conversion of S-VIDEO to NTSC/PAL video formats shall not be accepted.
- Touchpanel shall have built-in light sensor that will auto-dim the backlight.
- Touchpanel shall have built in Time-Based Correction for increased stability of video/graphics display.
- Touchpanel shall have RS-232 Port for touch-coordinate transmission in support of external devices such as Telestrators, etc.
- Touchpanel and image shall have 180-degree inversion/mounting capability, for optimum viewing angle in various applications (i.e. Wall or Lectern).

Options:

- Touchpanel must be capable of mounting in lecterns or wall. Touchpanel must have pre and post-construction wall-mounting options available.