

|  | Polycom<br>EF2280                                       | Competition   | Notes  |
|--|---|---|--|
| <b>Inputs</b>                                |   |   |  |
| Microphone/Line channels                     | 8   | 8   |  |
| Line only channels                           | 4   | 4   |  |
| Connectors                                   | <b>3.5mm Phoenix connectors</b>                         | 5 mm Phoenix connectors                                     | The integrator can read the labels for which connector is which when cabling the system. The cables and connectors do not obscure the labeling.  |
| Gain control                                 | <b>1 dB increments in hardware via software control</b> | Coarse adjustments in hardware, 1dB adjustments in software | Polycom's approach to gain minimizes quantization noise, i.e., hissing noise, so the signal to noise ratio can be higher and the system can sound better.  |
| Sample rate                                  | 48kHz   | 48kHz   | Higher sampling rates allow for wider signal bandwidth and better system sound.  |
| A/D-D/A resolution                           | 24 bits   | 24 bits   | The more bits in each sample of the signal, the better the signal can sound.   |
| <b>Automatic Microphone Mixing</b>           |   |   |  |
| Camera Gating                                | <b>Yes</b>  | No  | Camera gating provides location information based on microphone input signals that can be used to select camera position presets on an external camera positioning system. The system designer sets the threshold for how long a microphone must be active before the camera gating indicator is signaled to the external camera positioning system. The camera gating signal may be communicated with either a logic output signal or an RS232 message. |
| <b>Acoustic Echo Cancellation</b>            |   |   |  |
| Number of AECs                               | 8   | 8   |  |
| Tail time                                    | <b>270 msec</b>   | 128 msec  | Larger rooms and lively rooms have long echo paths. A longer tail time can improve the echo canceller performance in those rooms. Longer tail time does not introduce artifacts in the signal. 32-bit floating point arithmetic ensures the computation is very clean.   |
| Convergence time                             | 40 dB per second  | --  | Polycom convergence rate is very fast, so the system can sound better with more full-duplex behavior in changing room conditions including wireless microphones, changing volumes, and permits muting microphones at the element.  |
| Latency                                      | <b>13 msec</b>  | 19 msec   | The shorter the latency the better the system will sound when used with local in-room sound reinforcement. The local audio will get to the first set of loudspeakers fastest with low latency processing. Audio sounds more natural and remains in lip sync.   |
| Room gain                                    | <b>15dB</b>   | 12 dB   | Higher room gain means that the echo canceller can function properly in rooms where the volume is high, or there is significant coupling between the loudspeakers and the microphones.   |
| Number of References                         | 3   | 12  | The number of references coupled with the number of auto-mixers determines how a single unit can be subdivided for room combining applications.  |
| Arbitrary references different from outputs? | Yes   | Yes   | Polycom provides a total of 3 echo cancellation references, two built internally and one from the expansion bus. Polycom builds the references separately from outputs to  |

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|--|-------------------|-------------------|--|
|  |                   |                   | avoid having to provide outputs for a reference signal when performing sound reinforcement where the microphones are sent to local outputs but are not in the AEC reference.   |
| <b>Noise Cancellation</b>              |                   |                   |  |
| Noise cancellation function            | Yes               | Yes               | Removes ambient noise caused by projectors, HVAC, and other noise sources. Polycom's 3rd generation technology can improve intelligibility and adapts within one second to changing noise conditions. The noise cancellation can improve the performance of the AEC.   |
| <b>Control</b>                         |                   |                   |  |
| Number of RS232 ports                  | 1                 | 1                 |  |
| Baud rate                              | 9600 to 38400 bps | 9600 to 57600 bps |  |
| Broadcast to other devices             | <b>Yes</b>        | No                | The EF2280 can use its RS232 port to control other devices in the room. Virtually any command can be sent to another piece of equipment using the BROAD2 command. There is no limit to the commands that can be sent.  |
| Complete front panel control           | <b>Yes</b>        | No                | The EF2280 front panel control allows changes to be made to the Vortex configuration quickly and efficiently in cases where a PC loaded with control software might not be available. The front panel control can also be locked if desired to prevent unauthorized changes.   |
| Simultaneous control and PC monitoring | <b>Yes</b>        | No                | When using two or more Vortex devices, it is possible to simultaneously monitor the RS232 port with a computer and have the second RS232 port (from the second device) connected directly to the control system. This allows you to debug the control system without having to unplug the control system to plug into your computer. See the application note on how to do this. |
| <b>Windows Control S/W</b>             |                   |                   |  |
| InstantDesigner                        | <b>Yes</b>        | No                | InstantDesigner creates the right design file with proper matrix routing, input and output gains, input EQ, volume control, presets, macros and more. Compresses hours of design time to minutes and produces a functional system.   |
| CAD DXF Output                         | <b>Yes</b>        | No                | Automatically creates DXF drawings with the matrix and system block diagrams with text labels and system settings. These drawings can be quickly imported directly into the CAD drawings. Saves time for the designer and provides more information to the installer and can increase installation success rates.  |
| Report generator                       | Yes               | Yes               | Customizable automatic report generator creates required formatted documentation for device and project settings. No more tedious documentation steps -- only requires two clicks for detailed report.   |
| <b>Power Supply</b>                    |                   |                   |  |
| External Power supply                  | <b>Yes</b>        | No                | Significantly reduces internal heat build-up and the risk of product failure.  |
| <b>Warranty</b>                        |                   |                   |  |
| Warranty length                        | 2 years           | 2 year            | A two year warranty gives piece of mind using the Vortex products.   |