



idea which is actually very challenging to implement in a small form factor. To date, only 2X2 MIMO has been achieved on the handset, which makes their 4X4 solution all the more compelling.

Personal encryption and privacy was a new theme and garnered a lot of interest at the show. The Blackphone booth (not to be confused with Blackberry), run by SPG Technologies, was constantly packed, with many questions about availability and how the solution actually worked. The solution secures data at the application level, and while not yet ready to prevent NSA and hacker snoops, the attempts at trying to restore personal privacy garnered that attention of many at the show. At the same time Boeing lobbied in announcement from afar, suggesting they would have a fully encrypted handset by the end of the year, but not made available to the general public. Given the excitement around both solutions, our sense is that this budding area could grow into something significant given most people's wariness of big brother issues in both the States and elsewhere. In terms of how it affects the industry, we believe it could be a potential risk for Blackberry (or opportunity), with end-to-end encryption being a key advantage of their platform.

Blackberry clears up muddled MDM strategy; launches new devices

Blackberry likely won for the most press releases during Mobile World Congress. In the bevy of statements, we found their clarification of MDM pricing with EZPass to be the most resonant of all of them. The new pricing scheme breaks down their MDM solution into two, clear levels, which make it simple for any customer to understand. Before now, with the strategy implemented by the previous CEO, BES 10 had a "buffet-style" approach to pricing, which was both unclear and at odds with previous Blackberry pricing schemes. The new, simpler approach corrects these. The company also launched a couple handsets, one for the Indonesian market and one that returns to the company's roots of keyboards and trackballs. While the new handset design complements their end-to-end approach, we believe any hopes of traction in the consumer market will likely be muted by the ongoing increasing competition in smartphones in general and Blackberry's inability to gain application momentum with BES 10 specifically. Overall, we think management continues to make smart decisions about the way forward. It is difficult not to think about what could have been had these decision been implemented years ago. In spite of management's attempts at a turnaround however, our belief is it is too late, at least to justify the current market cap size of the company. We believe that they could be successful as a much smaller company with a smaller market cap. As a result, we maintain our Hold here.

The front endgame

Last year, we suggested that there would be consolidation in the frontend space, engineered by the active players – a result of Qualcomm's then announcement of RF 360, a completely integrated frontend solution on CMOS (eventually). While the complete solution is still a goal Qualcomm has yet to achieve using their internal elements alone, they do feel as though they will have a very competitive, complete solution within three years (not five as we suggest). At the show the company announced a win with ZTE for their latest front-end solutions, the QFE2320 and QFE2340. The solution integrates QCOM's version of envelope tracking, the power amplifier, antenna switch and high band amplifier on one platform. While Qualcomm announced a design win, other front-end players were busy both making deals and displaying their wares.

Before the show, RFMD announced a bid for Triquint, attempting to grab one of the two main players in BAW filters (Avago being the other). We do not feel like this is the