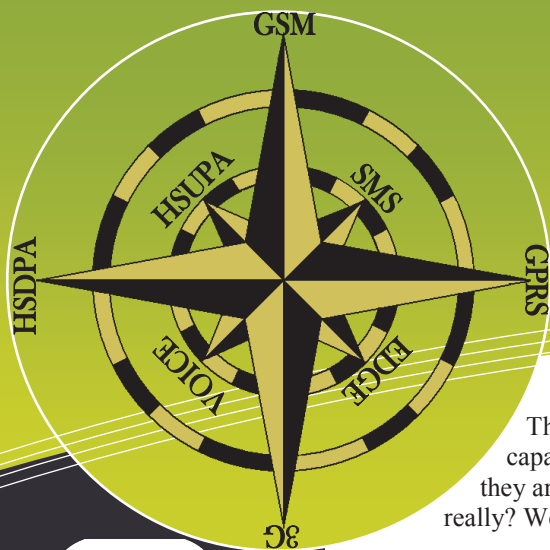


Application Note—SIM5215E and SIM5218E Compatibility

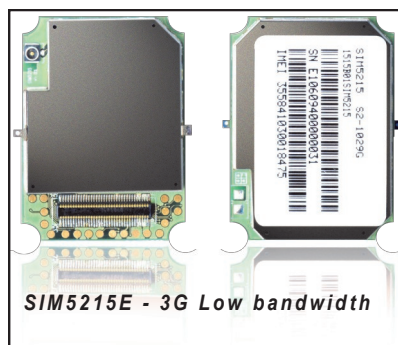


INTRODUCTION

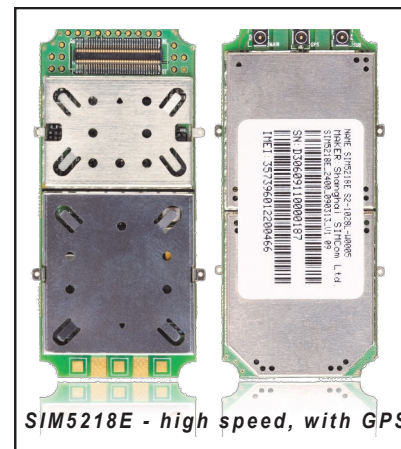
The SIM5215E and the SIM5218E are two highly capable devices, rich in features and low in cost. But they are meant for 2 very different markets. Or are they really? We explore this question.

AT A GLANCE

At first glance, the 2 modules look vastly different. The SIM5215E is a 3G module, but it appears to be of almost archaic origin. With a data limit of 384kbps, the device is barely recognizable as 3G. And yet this innovative product has been the recipient of recent awards, not least of which was the GSMA Award for the “The Best Low Bandwidth 3G module” in late 2009. This award recognized the innovative approach which SIMCom® had taken. The fact is that there are many products where 3G is simply not required, but the GSM networks worldwide do not necessarily cater well for this—in many cases new products are not being approved for use on the GSM networks, unless they adhere to a minimum criteria, which is normally a 3G requirement, with fallback to 2G being the accepted norm. The result is that products which do not require 3G speeds are being forced onto 3G technology backbones not out of actual technical necessity, but more as a result of network Compliance. The first problem with this is cost, because 3G technology costs more than 2G. As soon as hardware cost starts to rise, many applications which were borderline viable, are now rendered non-viable due to the cost of the initial investment. And this is where the SIM5215E comes into its own—it is specifically a low cost 3G module, which meets the Network Compliance requirements, but does not leave a hole in the wallet.



SIM5215E - 3G Low bandwidth



SIM5218E - high speed, with GPS

So now there is a low cost entry into the 3G market. But what about future proofing? What if the market wants higher speed down the line, and is prepared to pay more for it. This is where the bigger brother, the HSDPA / HSUPA, 7.2Mbps (DL) / 5.76Mbps (UL), SIM5218E starts to become attractive. Not only is it pin, footprint and power supply compatible with its smaller counterpart, the SIM5215E, but it also offers basic AT command compatibility as well. Both devices feature a seamless interface to an external Micro-SD card, and both devices feature a direct camera interface. In addition, to this, the high speed variant, SIM5218E, also features an embedded GPS.

Now consider a security application - the SIM5215E is selected for cost. The unit drives a camera which takes snapshots and stores them seamlessly to the Micro-SD card for later retrieval, on demand. The SIM5215E is perfect for this. But as is always the case, when you give the end customer a finger, they want the entire hand. What if the same security product had a more powerful variant, capable of delivering the same info, as well as the ability to initiate a video call on demand? The SIM5215E can do this, but the high bandwidth SIM5218E will do the same with much higher clarity. Add to this the ability to timestamp frames via the GPS timebase, and you suddenly have 2 very different products, both using exactly the same base-board, the only difference being the GS module.

This is the true power of the SIMCom® SIM5215E and SIM5218E. They are such different products, and yet in seeming contradiction to this statement they have so much in common.

APPLICATION NOTE DETAILS

GSM DEVICE	SIM5218E and SIM5215E
FIRMWARE	Not Applicable
ADDITIONAL NOTES	NONE
COMPILED BY	CHRISTOPHER VIVEIROS
EMAIL	CHRIS@OTTO.CO.ZA
MOBILE	+27 83 255 9970



DISCLAIMER

This application note and any associated software is provided in an “as-is” condition. No warranties, whether expressed, implied or statutory, including, but not limited to implied warranties of merchantability and fitness for a particular purpose apply to this application note or associated software. Otto Wireless Solutions, SIMCom and Otto Marketing shall not in any circumstances, be liable for special, incidental or consequential damages for any reason whatsoever.

This application note, and any associated software, or parts thereof, may not be reproduced or distributed without the explicit permission of Otto Wireless Solutions.

