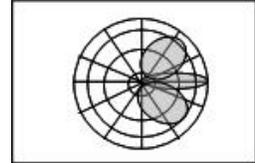


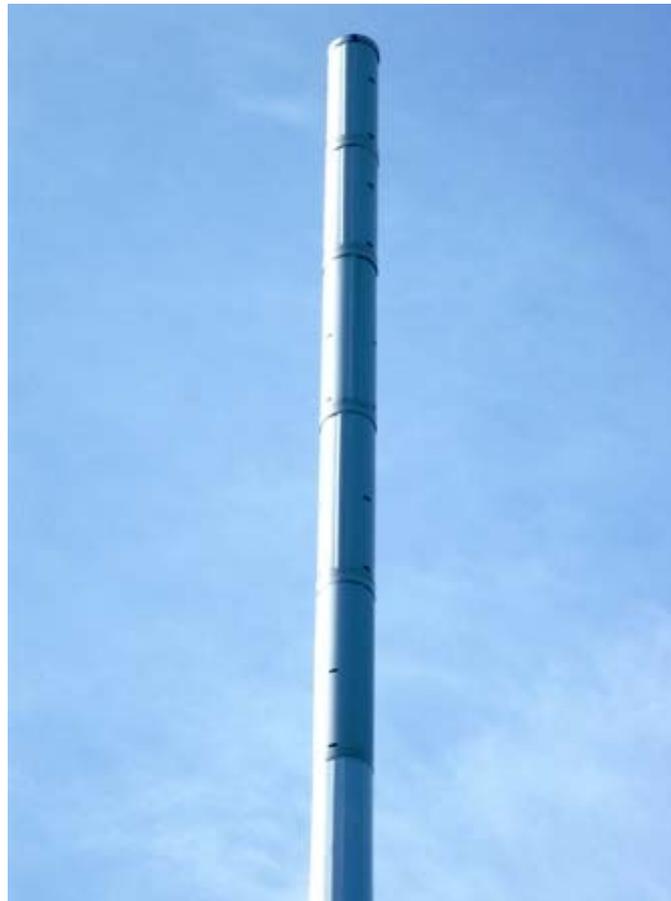
Earl J. Lum  
+1-650-430-2221  
[elum@ejlwireless.com](mailto:elum@ejlwireless.com)



**5th Edition**

**Global BTS Antenna Market Analysis and Forecast, 2013-2017**

**September 2013**



Entire contents © 2013 EJM Wireless Research LLC. All Rights Reserved. Reproduction of this publication in any form without prior written permission is strictly forbidden and will be prosecuted to the fully extent of US and International laws. The transfer of this publication in either paper or electronic form to unlicensed third parties is strictly forbidden. The information contained herein has been obtained from sources EJM Wireless Research LLC deems reliable. EJM Wireless Research disclaims all warranties as to the accuracy, completeness or adequacy of such information. EJM Wireless Research LLC shall have no liability for errors, omissions or inadequacies in the information contained herein or for the interpretation thereof. The reader assumes sole responsibility for the selection of these materials to achieve its intended results. The opinions expressed herein are subject to change without notice.

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	13
2012 Review .....	13
2013-2017 Unit Forecast.....	16
Demand Drivers for Our Forecast .....	17
2013-2017 Revenue Forecast .....	18
Summary.....	20
RESEARCH METHODOLOGY .....	22
Antenna Categories .....	22
CHAPTER 1: OVERALL BTS ANTENNA MARKET PERFORMANCE.....	24
1.1 2012: High Band Antennas Continue to Lead the Industry .....	24
1.2 BTS Antenna Forecast 2013-2017 .....	27
2013-2017 Unit Forecast.....	28
Demand Drivers for Our Forecast .....	30
1.3 Unit Forecast by Antenna Type .....	31
2013-2017 Revenue Forecast .....	32
1.4 Panel Antenna & RET Forecast by Revenues .....	32
1.5 Panel Antenna Unit Forecast by Site Type.....	33
1.6 2012 Antenna Supplier Market Share.....	35
CHAPTER 2: SECTORIZED PANEL ANTENNAS .....	37
2.1 Single Band Panel Antennas Continue to Dominate BTS Market .....	37
2.2 Global Panel Antenna Forecast, 2013-2017.....	38
2.3 Largest Segment by Size are the 1.3m Panel Antennas .....	42
2.4 Multi-Band Becomes the Largest Segment.....	44
CHAPTER 3: OMNI DIRECTIONAL ANTENNAS .....	46
CHAPTER 4: OTHER ANTENNAS .....	49
CHAPTER 5: LOW BAND (700-960MHZ) .....	52
CHAPTER 6: HIGH BAND (1700-2600MHZ) .....	55
CHAPTER 7: MULTI-BAND PANEL ANTENNAS .....	59
CHAPTER 8: BTS PANEL ANTENNA DIPOLE ELEMENT TECHNOLOGY.....	64
CHAPTER 9: VARIABLE ELECTRICAL TILT (VET)/REMOTE ELECTRICAL TILT (RET) ANTENNA TECHNOLOGY.....	71
CHAPTER 10: SEMI/FULLY INTEGRATED ACTIVE ANTENNA TECHNOLOGY.....	76
Semi-Active/Active Integrated Antenna Unit Forecast, 2012-2017.....	83
Semi-Active/Active Integrated Antenna Revenue Forecast, 2012-2017.....	85
CHAPTER 11: 2T 4R CONFIGURATION WITH MAXIMUM RATIO COMBINING (MRC) .....	87
CHAPTER 12: TDD ANTENNA TECHNOLOGY .....	90
CHAPTER 13: GEOGRAPHICAL MARKET SHARE .....	94
North America Driven by LTE .....	94
Global BTS Antenna Revenue Forecast by Region 2012-2017 .....	97
CHAPTER 14: NORTH AMERICA.....	99
North America BTS Antenna Forecast 2013-2017.....	101
CHAPTER 15: LATIN AMERICA .....	116
Latin America BTS Antenna Forecast 2013-2017.....	118

CHAPTER 16: WESTERN EUROPE..... 133  
Western Europe BTS Antenna Forecast 2013-2017..... 135  
CHAPTER 17: EASTERN EUROPE..... 150  
Eastern Europe BTS Antenna Forecast 2013-2017..... 152  
CHAPTER 18: AFRICA..... 167  
Africa BTS Antenna Forecast 2013-2017..... 169  
CHAPTER 19: THE MIDDLE EAST..... 184  
The Middle East BTS Antenna Forecast 2013-2017..... 186  
CHAPTER 20: ASIA PACIFIC ..... 201  
Asia Pacific BTS Antenna Forecast 2013-2017 ..... 203  
CHAPTER 21: CHINA MARKET ANALYSIS ..... 218  
China BTS Antenna Forecast 2013-2017 ..... 221  
CHAPTER 22: INDIA MARKET ANALYSIS ..... 236  
India BTS Antenna Forecast 2013-2017..... 239  
CHAPTER 23: CONSOLIDATION FACTORS..... 254

## TABLES

Table 1: Global BTS Antenna Forecast by Type, 2012-2017 (Units) .....	31
Table 2: Global BTS Antenna Forecast by Type, 2012-2017 (% Market Share).....	31
Table 3: Global BTS Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	31
Table 4: Global BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	32
Table 5: Global BTS Antenna Revenue Forecast by Type, 2012-2017 (% Market Share) .....	32
Table 6: Global BTS Antenna Revenue Forecast by Type, 2012-2017 (% YoY Growth) .....	32
Table 7: BTS Antenna Forecast by Site Configuration, 2012-2017 (Units) .....	33
Table 8: Global BTS Antenna Forecast by Site Configuration, 2012-2017 (% Market Share) .....	33
Table 9: Global BTS Antenna Forecast by Site Configuration, 2012-2017 (% YoY Growth).....	34
Table 10: Global BTS Antenna Market Share by OEM, 2011-2012 (Units) .....	35
Table 11: Global BTS Panel Antenna Market Share by Type, 2011-2012 (Units).....	37
Table 12: Global BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	41
Table 13: Global BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	41
Table 14: Global BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth).....	41
Table 15: Global BTS Panel Antenna Market Share by Size, 2011-2012 (Units) .....	42
Table 16: Global BTS Panel Antenna Forecast by Size, 2012-2017 (Units) .....	43
Table 17: Global BTS Panel Antenna Forecast by Size, 2012-2017 (% Market Share) .....	43
Table 18: Global BTS Panel Antenna Forecast by Size, 2012-2017 (% YoY Growth).....	43
Table 19: Global BTS Panel Antenna Market Share by Frequency, 2011-2012 (Units) .....	44
Table 20: Global BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	45
Table 21: Global BTS Panel Antenna Forecast by Frequency, 2012-2017 (% Market Share).....	45
Table 22: Global BTS Panel Antenna Forecast by Frequency, 2012-2017 (% YoY Growth) .....	45
Table 23: Global BTS Omni Directional Antenna Market Share by Frequency, 2011-2012 (Units) .....	46
Table 24: Global BTS Omni Directional Antenna Forecast by Frequency, 2012-2017 (Units) .....	47
Table 25: Global BTS Omni Directional Antenna Forecast by Frequency, 2012-2017 (% Market Share) ...	47
Table 26: Global BTS Omni Directional Antenna Forecast by Frequency, 2012-2017 (% YoY Growth) .....	47
Table 27: Global BTS Other Antenna Market Share by Frequency, 2011-2012 (Units).....	49
Table 28: Global BTS Other Antenna Forecast by Frequency, 2012-2017 (Units) .....	50
Table 29: Global BTS Other Antenna Forecast by Frequency, 2012-2017 (% Market Share) .....	50
Table 30: Global BTS Other Antenna Forecast by Frequency, 2012-2017 (% YoY Growth).....	50
Table 31: Global Low Band BTS Antenna Shipments by Type, 2011-2012 (Units) .....	52
Table 32: Global Low Band BTS Antenna Forecast by Type, 2012-2017 (Units) .....	54
Table 33: Global Low Band BTS Antenna Forecast by Type, 2012-2017 (% Market Share) .....	54
Table 34: Global Low Band BTS Antenna Forecast by Type, 2012-2017 (% YoY Growth).....	54
Table 35: Global High Band BTS Antenna Shipments by Type, 2011-2012 (Units) .....	55
Table 36: Global High Band BTS Antenna Forecast by Type, 2012-2017 (Units) .....	57
Table 37: Global High Band BTS Antenna Forecast by Type, 2012-2017 (% Market Share) .....	57
Table 38: Global High Band BTS Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	57
Table 39: Global High Band Panel BTS Antenna Shipments by Frequency, 2011-2012 (Units) .....	58
Table 40: Global Multi-Band BTS Panel Antenna Shipments by Configuration, 2011-2012 (Units).....	59
Table 41: Global Multi-Band BTS Panel Antenna Shipments by Type, 2011-2012 (Units).....	60
Table 42: Global Multi-Band BTS Panel Antenna Forecast by Configuration, 2012-2017 (Units).....	63
Table 43: Global Multi-Band BTS Panel Antenna Forecast by Configuration, 2012-2017 (% Market Share) .....	63
Table 44: Global Multi-Band BTS Panel Antenna Forecast by Configuration, 2012-2017 (% YoY Growth) ..	63
Table 45: Global BTS Panel Antenna Shipments by Dipole Technology, 2011-2012 (Units) .....	64
Table 46: Global BTS Panel Antenna Forecast by Dipole Technology, 2012-2017 (Units) .....	65
Table 47: Global BTS Panel Antenna Forecast by Dipole Technology, 2012-2017 (% Market Share) .....	65
Table 48: Global BTS Panel Antenna Forecast by Dipole Technology, 2012-2017 (% YoY Growth) .....	65
Table 49: Global BTS Panel Antenna Dipole Element Shipments, 2007-2012 (Units).....	67
Table 50: Global BTS Panel Antenna Dipole Element Forecast, 2012-2017 (Units) .....	68
Table 51: Global BTS Panel Antenna Dipole Element Forecast, 2012-2017 (% Market Share) .....	68
Table 52: Global BTS Panel Antenna Dipole Element Forecast, 2012-2017 (% YoY Growth).....	68
Table 53: BTS Panel Antenna Shipments by Electrical Tilt, 2012-2017 (Units) .....	72
Table 54: BTS Panel Antenna Shipments by Electrical Tilt, 2012-2017 (% Market Share) .....	72
Table 55: BTS Panel Antenna Shipments by Electrical Tilt, 2012-2017 (%YoY Growth) .....	72
Table 56: Global BTS Antenna RET Motor Shipment Forecast by Region, 2012-2017 (Units) .....	75
Table 57: Global BTS Antenna RET Motor Shipment Forecast by Region, 2012-2017 (% Market Share) ..	75
Table 58: Global BTS Antenna RET Motor Shipment Forecast by Region, 2012-2017 (% YoY Growth) .....	75
Table 59: Global BTS Semi-Active/Integrated Active Antenna Forecast, 2012-2017 (Units) .....	83
Table 60: Global BTS Integrated Active Antenna Forecast, 2012-2017 (% Market Share).....	84
Table 61: Global BTS Integrated Active Antenna Forecast, 2012-2017 (% YoY Growth) .....	84

Table 62: Global BTS Semi-Active/Integrated Active Antenna Forecast, 2012-2017 (mUSD).....	85
Table 63: Global BTS Semi-Active/Integrated Active Antenna Forecast, 2012-2017 (% Market Share)....	85
Table 64: Global BTS Semi-Active/Integrated Active Antenna Forecast, 2012-2017 (% YoY Growth) .....	85
Table 65: Global BTS Antenna Shipment Forecast by Region, 2012-2017 (Units) .....	94
Table 66: Global BTS Antenna Shipment Forecast by Region, 2012-2017 (% Market Share).....	96
Table 67: Global BTS Antenna Shipment Forecast by Region, 2012-2017 (% YoY Growth) .....	96
Table 68: Global BTS Antenna Revenue Forecast by Region, 2012-2017 (mUSD).....	97
Table 69: Global BTS Antenna Revenue Forecast by Region, 2012-2017 (% Market Share) .....	97
Table 70: Global BTS Antenna Revenue Forecast by Region, 2012-2017 (% YoY Growth) .....	97
Table 71: North America BTS Antenna Shipments by Type, 2011-2012 (Units) .....	100
Table 72: North America BTS Antenna Forecast by Type, 2012-2017 (Units) .....	102
Table 73: North America BTS Antenna Forecast by Type, 2012-2017 (% Market Share) .....	102
Table 74: North America BTS Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	102
Table 75: North America BTS Panel Antenna Shipments by Size, 2011-2012 (Units) .....	103
Table 76: North America BTS Panel Antenna Forecast by Size, 2012-2017 (Units).....	104
Table 77: North America BTS Panel Antenna Forecast by Size, 2012-2017 (% Market Share) .....	104
Table 78: North America BTS Panel Antenna Forecast by Size, 2012-2017 (% YoY Growth) .....	104
Table 79: North America BTS Panel Antenna Shipments by Type, 2011-2012 (Units).....	105
Table 80: North America BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	106
Table 81: North America BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	106
Table 82: North America BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	106
Table 83: North America Multi-Band BTS Panel Antenna Shipments by Type, 2011-2012 (Units).....	107
Table 84: North America Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	108
Table 85: North America Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	108
Table 86: North America Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	108
Table 87: North America BTS Panel Antenna Shipments by Frequency, 2011-2012 (Units) .....	109
Table 88: North America BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units).....	110
Table 89: North America BTS Panel Antenna Forecast by Frequency, 2012-2017 (% Market Share) .....	110
Table 90: North America BTS Panel Antenna Forecast by Frequency, 2012-2017 (% YoY Growth).....	110
Table 91: North America BTS Panel Antenna Shipments by Electrical Tilt, 2011-2012 (Units) .....	111
Table 92: North America BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (Units) .....	112
Table 93: North America BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% Market Share) .....	112
Table 94: North America BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% YoY Growth) .....	112
Table 95: North America BTS Antenna RET Motor Shipment Forecast, 2012-2017 (Units) .....	113
Table 96: North America BTS Antenna RET Motor Shipment Forecast, 2012-2017 (% YoY Growth) .....	113
Table 97: North America BTS Antenna Revenues by Type, 2011-2012 (mUSD).....	113
Table 98: North America BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	114
Table 99: North America BTS Antenna Revenue Forecast by Type, 2012-2017 (% Market Share) .....	114
Table 100: North America BTS Antenna Revenue Forecast by Type, 2012-2017 (% YoY Growth) .....	114
Table 101: Latin America BTS Antenna Shipments by Type, 2011-2012 (Units) .....	117
Table 102: Latin America BTS Antenna Forecast by Type, 2012-2017 (Units) .....	119
Table 103: Latin America BTS Antenna Forecast by Type, 2012-2017 (% Market Share).....	119
Table 104: Latin America BTS Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	119
Table 105: Latin America BTS Panel Antenna Shipments by Size, 2011-2012 (Units).....	120
Table 106: Latin America BTS Panel Antenna Forecast by Size, 2012-2017 (Units).....	121
Table 107: Latin America BTS Panel Antenna Forecast by Size, 2012-2017 (% Market Share) .....	121
Table 108: Latin America BTS Panel Antenna Forecast by Size, 2012-2017 (% YoY Growth).....	121
Table 109: Latin America BTS Panel Antenna Shipments by Type, 2011-2012 (Units).....	122
Table 110: Latin America BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	123
Table 111: Latin America BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	123
Table 112: Latin America BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth).....	123
Table 113: Latin America Multi-Band BTS Panel Antenna Shipments by Type, 2011-2012 (Units).....	124
Table 114: Latin America Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	125
Table 115: Latin America Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	125
Table 116: Latin America Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	125
Table 117: Latin America BTS Panel Antenna Shipments by Frequency, 2011-2012 (Units) .....	126
Table 118: Latin America BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	127
Table 119: Latin America BTS Panel Antenna Forecast by Frequency, 2012-2017 (% Market Share) .....	127
Table 120: Latin America BTS Panel Antenna Forecast by Frequency, 2012-2017 (% YoY Growth) .....	127
Table 121: Latin America BTS Panel Antenna Shipments by Electrical Tilt, 2011-2012 (Units).....	128
Table 122: Latin America BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (Units).....	129

Table 123: Latin America BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% Market Share) .	129
Table 124: Latin America BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% YoY Growth)....	129
Table 125: Latin America BTS Antenna Revenues by Type, 2011-2012 (mUSD) .....	130
Table 126: Latin America BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD).....	131
Table 127: Latin America BTS Antenna Revenue Forecast by Type, 2012-2017 (% Market Share).....	131
Table 128: Latin America BTS Antenna Revenue Forecast by Type, 2012-2017 (% YoY Growth) .....	131
Table 129: Western Europe BTS Antenna Shipments by Type, 2011-2012 (Units) .....	134
Table 130: Western Europe BTS Antenna Forecast by Type, 2012-2017 (Units) .....	136
Table 131: Western Europe BTS Antenna Forecast by Type, 2012-2017 (% Market Share) .....	136
Table 132: Western Europe BTS Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	136
Table 133: Western Europe BTS Panel Antenna Shipments by Size, 2011-2012 (Units).....	137
Table 134: Western Europe BTS Panel Antenna Forecast by Size, 2012-2017 (Units).....	138
Table 135: Western Europe BTS Panel Antenna Forecast by Size, 2012-2017 (% Market Share) .....	138
Table 136: Western Europe BTS Panel Antenna Forecast by Size, 2012-2017 (% YoY Growth) .....	138
Table 137: Western Europe BTS Panel Antenna Shipments by Type, 2011-2012 (Units).....	139
Table 138: Western Europe BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	140
Table 139: Western Europe BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	140
Table 140: Western Europe BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	140
Table 141: Western Europe Multi-Band BTS Panel Antenna Shipments by Type, 2011-2012 (Units).....	141
Table 142: Western Europe Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	142
Table 143: Western Europe Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share).....	142
Table 144: Western Europe Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	142
Table 145: Western Europe BTS Panel Antenna Shipments by Frequency, 2011-2012 (Units).....	143
Table 146: Western Europe BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	144
Table 147: Western Europe BTS Panel Antenna Forecast by Frequency, 2012-2017 (% Market Share) .	144
Table 148: Western Europe BTS Panel Antenna Forecast by Frequency, 2012-2017 (% YoY Growth)....	144
Table 149: Western Europe BTS Panel Antenna Shipments by Electrical Tilt, 2011-2012 (Units) .....	145
Table 150: Western Europe BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (Units) .....	146
Table 151: Western Europe BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% Market Share) .....	146
Table 152: Western Europe BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% YoY Growth) .....	146
Table 153: Western Europe BTS Antenna Revenues by Type, 2011-2012 (mUSD).....	147
Table 154: Western Europe BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	148
Table 155: Western Europe BTS Antenna Revenue Forecast by Type, 2012-2017 (% Market Share) ....	148
Table 156: Western Europe BTS Antenna Revenue Forecast by Type, 2012-2017 (% YoY Growth) .....	148
Table 157: Eastern Europe BTS Antenna Shipments by Type, 2011-2012 (Units) .....	151
Table 158: Eastern Europe BTS Antenna Forecast by Type, 2012-2017 (Units) .....	153
Table 159: Eastern Europe BTS Antenna Forecast by Type, 2012-2017 (% Market Share) .....	153
Table 160: Eastern Europe BTS Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	153
Table 161: Eastern Europe BTS Panel Antenna Shipments by Size, 2011-2012 (Units) .....	154
Table 162: Eastern Europe BTS Panel Antenna Forecast by Size, 2012-2017 (Units).....	155
Table 163: Eastern Europe BTS Panel Antenna Forecast by Size, 2012-2017 (% Market Share) .....	155
Table 164: Eastern Europe BTS Panel Antenna Forecast by Size, 2012-2017 (% YoY Growth) .....	155
Table 165: Eastern Europe BTS Panel Antenna Shipments by Type, 2011-2012 (Units).....	156
Table 166: Eastern Europe BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	157
Table 167: Eastern Europe BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	157
Table 168: Eastern Europe BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	157
Table 169: Eastern Europe Multi-Band BTS Panel Antenna Shipments by Type, 2011-2012 (Units).....	158
Table 170: Eastern Europe Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	159
Table 171: Eastern Europe Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	159
Table 172: Eastern Europe Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	159
Table 173: Eastern Europe BTS Panel Antenna Shipments by Frequency, 2011-2012 (Units) .....	160
Table 174: Eastern Europe BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	161
Table 175: Eastern Europe BTS Panel Antenna Forecast by Frequency, 2012-2017 (% Market Share) ..	161
Table 176: Eastern Europe BTS Panel Antenna Forecast by Frequency, 2012-2017 (% YoY Growth)....	161
Table 177: Eastern Europe BTS Panel Antenna Shipments by Electrical Tilt, 2011-2012 (Units) .....	162
Table 178: Eastern Europe BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (Units) .....	163
Table 179: Eastern Europe BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% Market Share).....	163
Table 180: Eastern Europe BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% YoY Growth) .	163

Table 181: Eastern Europe BTS Antenna Revenues by Type, 2011-2012 (mUSD).....	164
Table 182: Eastern Europe BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	165
Table 183: Eastern Europe BTS Antenna Revenue Forecast by Type, 2012-2017 (% Market Share) .....	165
Table 184: Eastern Europe BTS Antenna Revenue Forecast by Type, 2012-2017 (% YoY Growth) .....	165
Table 185: Africa BTS Antenna Shipments by Type, 2011-2012 (Units) .....	168
Table 186: Africa BTS Antenna Forecast by Type, 2012-2017 (Units) .....	170
Table 187: Africa BTS Antenna Forecast by Type, 2012-2017 (% Market Share) .....	170
Table 188: Africa BTS Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	170
Table 189: Africa BTS Panel Antenna Shipments by Size, 2011-2012 (Units) .....	171
Table 190: Africa BTS Panel Antenna Forecast by Size, 2012-2017 (Units) .....	172
Table 191: Africa BTS Panel Antenna Forecast by Size, 2012-2017 (% Market Share) .....	172
Table 192: Africa BTS Panel Antenna Forecast by Size, 2012-2017 (% YoY Growth) .....	172
Table 193: Africa BTS Panel Antenna Shipments by Type, 2011-2012 (Units) .....	173
Table 194: Africa BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	174
Table 195: Africa BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	174
Table 196: Africa BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	174
Table 197: Africa Multi-Band BTS Panel Antenna Shipments by Type, 2011-2012 (Units) .....	175
Table 198: Africa Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	176
Table 199: Africa Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	176
Table 200: Africa Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	176
Table 201: Africa BTS Panel Antenna Shipments by Frequency, 2011-2012 (Units) .....	177
Table 202: Africa BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	178
Table 203: Africa BTS Panel Antenna Forecast by Frequency, 2012-2017 (% Market Share) .....	178
Table 204: Africa BTS Panel Antenna Forecast by Frequency, 2012-2017 (% YoY Growth) .....	178
Table 205: Africa BTS Panel Antenna Shipments by Electrical Tilt, 2011-2012 (Units) .....	179
Table 206: Africa BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (Units) .....	180
Table 207: Africa BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% Market Share) .....	180
Table 208: Africa BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% YoY Growth) .....	180
Table 209: Africa BTS Antenna Revenues by Type, 2011-2012 (mUSD) .....	181
Table 210: Africa BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	182
Table 211: Africa BTS Antenna Revenue Forecast by Type, 2012-2017 (% Market Share) .....	182
Table 212: Africa BTS Antenna Revenue Forecast by Type, 2012-2017 (% YoY Growth) .....	182
Table 213: The Middle East BTS Antenna Shipments by Type, 2011-2012 (Units) .....	185
Table 214: The Middle East BTS Antenna Forecast by Type, 2012-2017 (Units) .....	187
Table 215: The Middle East BTS Antenna Forecast by Type, 2012-2017 (% Market Share) .....	187
Table 216: The Middle East BTS Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	187
Table 217: The Middle East BTS Panel Antenna Shipments by Size, 2011-2012 (Units) .....	188
Table 218: The Middle East BTS Panel Antenna Forecast by Size, 2012-2017 (Units) .....	189
Table 219: The Middle East BTS Panel Antenna Forecast by Size, 2012-2017 (% Market Share) .....	189
Table 220: The Middle East BTS Panel Antenna Forecast by Size, 2012-2017 (% YoY Growth) .....	189
Table 221: The Middle East BTS Panel Antenna Shipments by Type, 2011-2012 (Units) .....	190
Table 222: The Middle East BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	191
Table 223: The Middle East BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	191
Table 224: The Middle East BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	191
Table 225: The Middle East Multi-Band BTS Panel Antenna Shipments by Type, 2011-2012 (Units) .....	192
Table 226: The Middle East Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	193
Table 227: The Middle East Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	193
Table 228: The Middle East Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	193
Table 229: The Middle East BTS Panel Antenna Shipments by Frequency, 2011-2012 (Units) .....	194
Table 230: The Middle East BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	195
Table 231: The Middle East BTS Panel Antenna Forecast by Frequency, 2012-2017 (% Market Share) .....	195
Table 232: The Middle East BTS Panel Antenna Forecast by Frequency, 2012-2017 (% YoY Growth) .....	195
Table 233: The Middle East BTS Panel Antenna Shipments by Electrical Tilt, 2011-2012 (Units) .....	196
Table 234: The Middle East BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (Units) .....	197
Table 235: The Middle East BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% Market Share) .....	197
Table 236: The Middle East BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% YoY Growth) .....	197
Table 237: The Middle East BTS Antenna Revenues by Type, 2011-2012 (mUSD) .....	198
Table 238: The Middle East BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	199
Table 239: The Middle East BTS Antenna Revenue Forecast by Type, 2012-2017 (% Market Share) .....	199
Table 240: The Middle East BTS Antenna Revenue Forecast by Type, 2012-2017 (% YoY Growth) .....	199

Table 241: Asia Pacific BTS Antenna Shipments by Type, 2011-2012 (Units) .....	202
Table 242: Asia Pacific BTS Antenna Forecast by Type, 2012-2017 (Units) .....	204
Table 243: Asia Pacific BTS Antenna Forecast by Type, 2012-2017 (% Market Share) .....	204
Table 244: Asia Pacific BTS Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	204
Table 245: Asia Pacific BTS Panel Antenna Shipments by Size, 2011-2012 (Units) .....	205
Table 246: Asia Pacific BTS Panel Antenna Forecast by Size, 2012-2017 (Units) .....	206
Table 247: Asia Pacific BTS Panel Antenna Forecast by Size, 2012-2017 (% Market Share) .....	206
Table 248: Asia Pacific BTS Panel Antenna Forecast by Size, 2012-2017 (% YoY Growth) .....	206
Table 249: Asia Pacific BTS Panel Antenna Shipments by Type, 2011-2012 (Units) .....	207
Table 250: Asia Pacific BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	208
Table 251: Asia Pacific BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	208
Table 252: Asia Pacific BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	208
Table 253: Asia Pacific Multi-Band BTS Panel Antenna Shipments by Type, 2011-2012 (Units) .....	209
Table 254: Asia Pacific Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	210
Table 255: Asia Pacific Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	210
Table 256: Asia Pacific Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) ..	210
Table 257: Asia Pacific BTS Panel Antenna Shipments by Frequency, 2011-2012 (Units) .....	211
Table 258: Asia Pacific BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	212
Table 259: Asia Pacific BTS Panel Antenna Forecast by Frequency, 2012-2017 (% Market Share) .....	212
Table 260: Asia Pacific BTS Panel Antenna Forecast by Frequency, 2012-2017 (% YoY Growth) .....	212
Table 261: Asia Pacific BTS Panel Antenna Shipments by Electrical Tilt, 2011-2012 (Units) .....	213
Table 262: Asia Pacific BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (Units) .....	214
Table 263: Asia Pacific BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% Market Share) .....	214
Table 264: Asia Pacific BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% YoY Growth) .....	214
Table 265: Asia Pacific BTS Antenna Revenues by Type, 2011-2012 (mUSD) .....	215
Table 266: Asia Pacific BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	216
Table 267: Asia Pacific BTS Antenna Revenue Forecast by Type, 2012-2017 (% Market Share) .....	216
Table 268: Asia Pacific BTS Antenna Revenue Forecast by Type, 2012-2017 (% YoY Growth) .....	216
Table 269: China BTS Antenna Shipments by Type, 2011-2012 (Units) .....	220
Table 270: China BTS Antenna Forecast by Type, 2012-2017 (Units) .....	222
Table 271: China BTS Antenna Forecast by Type, 2012-2017 (% Market Share) .....	222
Table 272: China BTS Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	222
Table 273: China BTS Panel Antenna Shipments by Size, 2011-2012 (Units) .....	223
Table 274: China BTS Panel Antenna Forecast by Size, 2012-2017 (Units) .....	224
Table 275: China BTS Panel Antenna Forecast by Size, 2012-2017 (% Market Share) .....	224
Table 276: China BTS Panel Antenna Forecast by Size, 2012-2017 (% YoY Growth) .....	224
Table 277: China BTS Panel Antenna Shipments by Type, 2011-2012 (Units) .....	225
Table 278: China BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	226
Table 279: China BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	226
Table 280: China BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	226
Table 281: China Multi-Band BTS Panel Antenna Shipments by Type, 2011-2012 (Units) .....	227
Table 282: China Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	228
Table 283: China Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share) .....	228
Table 284: China Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	228
Table 285: China BTS Panel Antenna Shipments by Frequency, 2011-2012 (Units) .....	229
Table 286: China BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	230
Table 287: China BTS Panel Antenna Forecast by Frequency, 2012-2017 (% Market Share) .....	230
Table 288: China BTS Panel Antenna Forecast by Frequency, 2012-2017 (% YoY Growth) .....	230
Table 289: China BTS Panel Antenna Shipments by Electrical Tilt, 2011-2012 (Units) .....	231
Table 290: China BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (Units) .....	232
Table 291: China BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% Market Share) .....	232
Table 292: China BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% YoY Growth) .....	232
Table 293: China BTS Antenna Revenues by Type, 2011-2012 (mUSD) .....	233
Table 294: China BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	234
Table 295: China BTS Antenna Revenue Forecast by Type, 2012-2017 (% Market Share) .....	234
Table 296: China BTS Antenna Revenue Forecast by Type, 2012-2017 (% YoY Growth) .....	234
Table 297: India BTS Antenna Shipments by Type, 2011-2012 (Units) .....	238
Table 298: India BTS Antenna Forecast by Type, 2012-2017 (Units) .....	240
Table 299: India BTS Antenna Forecast by Type, 2012-2017 (% Market Share) .....	240
Table 300: India BTS Antenna Forecast by Type, 2012-2017 (% YoY Growth) .....	240
Table 301: India BTS Panel Antenna Shipments by Size, 2011-2012 (Units) .....	241
Table 302: India BTS Panel Antenna Forecast by Size, 2012-2017 (Units) .....	242
Table 303: India BTS Panel Antenna Forecast by Size, 2012-2017 (% Market Share) .....	242

Table 304: India BTS Panel Antenna Forecast by Size, 2012-2017 (% YoY Growth).....	242
Table 305: India BTS Panel Antenna Shipments by Type, 2011-2012 (Units).....	243
Table 306: India BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	244
Table 307: India BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share).....	244
Table 308: India BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth).....	244
Table 309: India Multi-Band BTS Panel Antenna Shipments by Type, 2011-2012 (Units).....	245
Table 310: India Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	246
Table 311: India Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% Market Share).....	246
Table 312: India Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (% YoY Growth).....	246
Table 313: India BTS Panel Antenna Shipments by Frequency, 2011-2012 (Units).....	247
Table 314: India BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units).....	248
Table 315: India BTS Panel Antenna Forecast by Frequency, 2012-2017 (% Market Share).....	248
Table 316: India BTS Panel Antenna Forecast by Frequency, 2012-2017 (% YoY Growth).....	248
Table 317: India BTS Panel Antenna Shipments by Electrical Tilt, 2011-2012 (Units).....	249
Table 318: India BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (Units).....	250
Table 319: India BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% Market Share).....	250
Table 320: India BTS Panel Antenna Forecast by Electrical Tilt, 2012-2017 (% YoY Growth).....	250
Table 321: India BTS Antenna Revenues by Type, 2011-2012 (mUSD).....	251
Table 322: India BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD).....	252
Table 323: India BTS Antenna Revenue Forecast by Type, 2012-2017 (% Market Share).....	252
Table 324: India BTS Antenna Revenue Forecast by Type, 2012-2017 (% YoY Growth).....	252

## EXHIBITS

Exhibit 1: Global BTS Panel Antenna Market Share by Frequency Bands, 2012 (Units) .....	14
Exhibit 2: Comparison of 2012 Global BTS Antenna Forecast vs. Actual Shipments.....	15
Exhibit 3: Global BTS Antenna Shipments, 2011-2012 (Units) .....	15
Exhibit 4: Global BTS Antenna Forecast 2013-2017, (% YoY Growth) .....	16
Exhibit 5: Global BTS Antenna Revenues, 2011-2012 (mUSD) .....	18
Exhibit 6: Global BTS Antenna Revenue Forecast 2013-2017, (% YoY Growth) .....	19
Exhibit 7: Global BTS Panel Antenna Market Share by Frequency Band, 2012 (Units) .....	24
Exhibit 8: Global BTS Antenna Market Share by Technology Type, 2012 (Units).....	25
Exhibit 9: Global BTS Panel Antenna Market Share by Technology, 2012 (Units).....	25
Exhibit 10: Global BTS Antenna Market Share by Frequency Band, 2011-2012 (Units).....	26
Exhibit 11: Global BTS Antenna Market Share by Band Capacity, 2011-2012 (Units) .....	26
Exhibit 12: Global BTS Antenna Forecast 2012-2017, (% YoY Growth) .....	29
Exhibit 13: Global BTS Antenna Forecast by Type, 2012-2017 (Units) .....	31
Exhibit 14: Global BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD).....	33
Exhibit 15: BTS Antenna Forecast by Site Configuration, 2012-2017 (Units).....	34
Exhibit 16: Global BTS Antenna Market Share by OEM, 2012 (Units) .....	36
Exhibit 17: Global BTS Panel Antenna Shipments by Type, 2012 (Units) .....	37
Exhibit 18: Global BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	38
Exhibit 19: Global BTS Panel Antenna Forecast 2012-2017, (% YoY Growth).....	39
Exhibit 20: Global BTS Panel Antenna Forecast Single vs. Multi-Band, 2012-2017 (% Market Share).....	39
Exhibit 21: Global BTS Panel Antenna Forecast 2012-2017, Single Band (% YoY Growth) .....	40
Exhibit 22: Global BTS Panel Antenna Forecast 2012-2017, Multi-Band (% YoY Growth) .....	40
Exhibit 23: Global BTS Panel Antenna Shipments by Size, 2012 (Units) .....	42
Exhibit 24: Global BTS Panel Antenna Forecast by Size, 2012-2017 (Units).....	43
Exhibit 25: Global BTS Panel Antenna Shipments by Frequency, 2012 (Units).....	44
Exhibit 26: Global BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	45
Exhibit 27: Global BTS Omni Directional Antenna Shipments by Frequency, 2012 (Units).....	46
Exhibit 28: Global BTS Omni Directional Antenna Shipments by Frequency, 2012-2017(Units) .....	47
Exhibit 29: Global BTS Omni Directional Antenna Forecast by Frequency, 2012-2017 (% YoY Growth) ...	48
Exhibit 30: Global BTS Other Antenna Shipments by Frequency, 2012 (Units) .....	49
Exhibit 31: Global BTS Other Antenna Shipments by Frequency, 2012-2017 (Units).....	50
Exhibit 32: Global BTS Other Antenna Forecast, 2012-2017 (% YoY Growth).....	51
Exhibit 33: Global Low Band BTS Antenna Shipments by Type, 2012 (Units) .....	52
Exhibit 34: Global Low Band BTS Antenna Forecast 2012-2017, (Units) .....	53
Exhibit 35: Global Low Band BTS Antenna Forecast 2012-2017, (% YoY Growth).....	53
Exhibit 36: Global High Band BTS Antenna Shipments by Type, 2012 (Units) .....	55
Exhibit 37: Global High Band BTS Antenna Forecast 2012-2017, (Units) .....	56
Exhibit 38: Global High Band BTS Antenna Forecast 2012-2017, (% YoY Growth).....	56
Exhibit 39: Lower vs. Upper High Band Panel BTS Antenna Forecast, 2012-2017 (Units).....	57
Exhibit 40: Global High Band Panel BTS Antenna Shipments, 2012 (Units) .....	58
Exhibit 41: Global Multi-Band BTS Panel Antenna Shipments by Configuration, 2012 (Units) .....	59
Exhibit 42: Global Multi-Band BTS Panel Antenna Shipments by Type, 2012 (Units) .....	60
Exhibit 43: CommScope RV4PX310R Penta Band L/H/H/H/H Antenna .....	61
Exhibit 44: Global Multi-Band BTS Panel Antenna Forecast 2012-2017, (Units) .....	62
Exhibit 45: Global Multi-Band BTS Panel Antenna Forecast 2012-2017, (% YoY Growth).....	62
Exhibit 46: Global Multi-Band BTS Panel Antenna Forecast by Configuration, 2012-2017 (Units) .....	63
Exhibit 47: Global BTS Panel Antenna Shipments by Dipole Technology, 2012 (Units) .....	64
Exhibit 48: Global BTS Panel Antenna Forecast by Dipole Technology, 2012-2017 (Units) .....	65
Exhibit 49: Global BTS Panel Antenna Forecast by Dipole Technology, 2012-2017 (% YoY Growth) .....	66
Exhibit 50: Global BTS Panel Antenna Dipole Element Shipments, 2012 (Units) .....	67
Exhibit 51: Global BTS Panel Antenna Dipole Element Forecast, 2012-2017 (Units).....	68
Exhibit 52: Global BTS Panel Antenna Dipole Element Forecast, 2012-2017 (% YoY Growth).....	69
Exhibit 53: Global Low Band BTS Panel Antenna Dipole Element Forecast, 2012-2017 (% YoY Growth) ..	69
Exhibit 54: Global High Band BTS Panel Antenna Dipole Element Forecast, 2012-2017 (% YoY Growth) .	70
Exhibit 55: BTS Panel Antenna Shipments by Electrical Tilt, 2012-2017 (Units).....	72
Exhibit 56: FET BTS Panel Antenna Shipments, 2012-2017 (% YoY Growth).....	73
Exhibit 57: VET w/o RET BTS Panel Antenna Shipments, 2012-2017 (% YoY Growth).....	73
Exhibit 58: VET w/ RET BTS Panel Antenna Shipments, 2012-2017 (% YoY Growth) .....	74
Exhibit 59: Global BTS Antenna RET Motor Shipment Forecast by Region, 2012 (Units) .....	74
Exhibit 60: Alcatel-Lucent lightRadio 8x2 16-element Active Antenna Concept.....	77
Exhibit 61: Ericsson AIR Product .....	78
Exhibit 62: Huawei Adaptive Radio Unit .....	79

Exhibit 63: NSN Flexi Multi Radio Antenna.....	80
Exhibit 64: Socowave TRIDENT, External View (left) Internal View (right) .....	81
Exhibit 65: Site Installation of Ubidyne antenna.....	82
Exhibit 66: BTS Site Evolution in Radio Technology .....	83
Exhibit 67: Global BTS Integrated Active Antenna Forecast, 2012-2017 (% Market Share).....	84
Exhibit 68: Global BTS Semi-Active/Integrated Active Antenna Forecast, 2012-2017 (mUSD).....	86
Exhibit 69: 4-way MRC Comparison between Elevation Beamforming (Quintel) and Azimuthal Beamforming.....	87
Exhibit 70: TDD 8x2 Antenna .....	90
Exhibit 71: TD-SCDMA Antenna .....	91
Exhibit 72: Multi Coaxial Interface Connector (MCIC).....	91
Exhibit 73: MCIC Connector Evolution.....	92
Exhibit 74: MOBI TDD/FDD Antenna with MCIC and 7/16 DIN Connectors.....	92
Exhibit 75: MOBI TD-SCDMA/TD-LTE Antenna with MCIC Connectors .....	93
Exhibit 76: Global BTS Antenna Market Share by Region, 2012 (Units) .....	95
Exhibit 77: Global BTS Antenna Forecast by Region, 2017 (Units).....	95
Exhibit 78: Global BTS Antenna Shipment Forecast by Region, 2012-2017 (% Market Share).....	96
Exhibit 79: Global BTS Antenna Revenue by Region, 2012 (mUSD) .....	98
Exhibit 80: North America BTS Antenna Shipments by Type, 2012 (Units) .....	100
Exhibit 81: North America BTS Antenna Forecast 2012-2017, (% YoY Growth) .....	101
Exhibit 82: North America BTS Antenna Forecast 2012-2017, (Units) .....	102
Exhibit 83: North America BTS Panel Antenna Shipments by Size, 2012 (Units).....	103
Exhibit 84: North America BTS Panel Antenna Forecast by Size, 2012-2017 (Units).....	104
Exhibit 85: North America BTS Panel Antenna Shipments by Type, 2012 (Units).....	105
Exhibit 86: North America BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	106
Exhibit 87: North America Multi-Band BTS Panel Antenna Shipments by Type, 2012 (Units).....	107
Exhibit 88: North America Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	108
Exhibit 89: North America BTS Panel Antenna Shipments by Frequency, 2012 (Units) .....	109
Exhibit 90: North America BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units).....	110
Exhibit 91: North America BTS Panel Antenna Shipments by Electrical Tilt, 2012 (Units).....	111
Exhibit 92: North America VET BTS Panel Antenna Forecast, 2012-2017 (Units) .....	112
Exhibit 93: North America BTS Antenna RET Motor Shipment Forecast, 2012-2017 (Units) .....	113
Exhibit 94: North America BTS Antenna Revenues by Type, 2012 (mUSD) .....	114
Exhibit 95: North America BTS Antenna Revenue Forecast, 2012-2017 (mUSD) .....	115
Exhibit 96: North America BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	115
Exhibit 97: Latin America BTS Antenna Shipments by Type, 2012 (Units) .....	117
Exhibit 98: Latin America BTS Antenna Forecast 2012-2017, (%YoY Growth) .....	118
Exhibit 99: Latin America BTS Antenna Forecast 2012-2017, (Units) .....	119
Exhibit 100: Latin America BTS Panel Antenna Shipments by Size, 2012 (Units) .....	120
Exhibit 101: Latin America BTS Panel Antenna Forecast by Size, 2012-2017 (Units).....	121
Exhibit 102: Latin America BTS Panel Antenna Shipments by Type, 2012 (Units) .....	122
Exhibit 103: Latin America BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	123
Exhibit 104: Latin America Multi-Band BTS Panel Antenna Shipments by Type, 2012 (Units) .....	124
Exhibit 105: Latin America Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	125
Exhibit 106: Latin America BTS Panel Antenna Shipments by Frequency, 2012 (Units) .....	126
Exhibit 107: Latin America BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units).....	127
Exhibit 108: Latin America BTS Panel Antenna Shipments by Electrical Tilt, 2012 (Units) .....	128
Exhibit 109: Latin America VET BTS Panel Antenna Forecast, 2012-2017 (Units).....	129
Exhibit 110: Latin America BTS Antenna RET Motor Shipment Forecast, 2012-2017 (Units).....	130
Exhibit 111: Latin America BTS Antenna Revenues by Type, 2012 (mUSD) .....	131
Exhibit 112: Latin America BTS Antenna Revenue Forecast, 2012-2017 (mUSD).....	132
Exhibit 113: Latin America BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD).....	132
Exhibit 114: Western Europe BTS Antenna Shipments by Type, 2012 (Units) .....	134
Exhibit 115: Western Europe BTS Antenna Forecast 2012-2017, (%YoY Growth) .....	135
Exhibit 116: Western Europe BTS Antenna Forecast 2012-2017, (Units) .....	136
Exhibit 117: Western Europe BTS Panel Antenna Shipments by Size, 2012 (Units).....	137
Exhibit 118: Western Europe BTS Panel Antenna Forecast by Size, 2012-2017 (Units).....	138
Exhibit 119: Western Europe BTS Panel Antenna Shipments by Type, 2012 (Units) .....	139
Exhibit 120: Western Europe BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	140
Exhibit 121: Western Europe Multi-Band BTS Panel Antenna Shipments by Type, 2012 (Units) .....	141
Exhibit 122: Western Europe Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units).....	142
Exhibit 123: Western Europe BTS Panel Antenna Shipments by Frequency, 2012 (Units) .....	143
Exhibit 124: Western Europe BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units).....	144

Exhibit 125: Western Europe BTS Panel Antenna Shipments by Electrical Tilt, 2012 (Units) .....	145
Exhibit 126: Western Europe VET BTS Panel Antenna Forecast, 2012-2017 (Units) .....	146
Exhibit 127: Western Europe BTS Antenna RET Motor Shipment Forecast, 2012-2017 (Units) .....	147
Exhibit 128: Western Europe BTS Antenna Revenues by Type, 2012 (mUSD) .....	148
Exhibit 129: Western Europe BTS Antenna Revenue Forecast, 2012-2017 (mUSD) .....	149
Exhibit 130: Western Europe BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	149
Exhibit 131: Eastern Europe BTS Antenna Shipments by Type, 2012 (Units) .....	151
Exhibit 132: Eastern Europe BTS Antenna Forecast 2012-2017, (%YoY Growth) .....	152
Exhibit 133: Eastern Europe BTS Antenna Forecast 2012-2017, (Units) .....	153
Exhibit 134: Eastern Europe BTS Panel Antenna Shipments by Size, 2012 (Units) .....	154
Exhibit 135: Eastern Europe BTS Panel Antenna Forecast by Size, 2012-2017 (Units) .....	155
Exhibit 136: Eastern Europe BTS Panel Antenna Shipments by Type, 2012 (Units) .....	156
Exhibit 137: Eastern Europe BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	157
Exhibit 138: Eastern Europe Multi-Band BTS Panel Antenna Shipments by Type, 2012 (Units) .....	158
Exhibit 139: Eastern Europe Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	159
Exhibit 140: Eastern Europe BTS Panel Antenna Shipments by Frequency, 2012 (Units) .....	160
Exhibit 141: Eastern Europe BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	161
Exhibit 142: Eastern Europe BTS Panel Antenna Shipments by Electrical Tilt, 2012 (Units) .....	162
Exhibit 143: Eastern Europe VET BTS Panel Antenna Forecast, 2012-2017 (Units) .....	163
Exhibit 144: Eastern Europe BTS Antenna RET Motor Shipment Forecast, 2012-2017 (Units) .....	164
Exhibit 145: Eastern Europe BTS Antenna Revenues by Type, 2012 (mUSD) .....	165
Exhibit 146: Eastern Europe BTS Antenna Revenue Forecast, 2012-2017 (mUSD) .....	166
Exhibit 147: Eastern Europe BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	166
Exhibit 148: Africa BTS Antenna Shipments by Type, 2012 (Units) .....	168
Exhibit 149: Africa BTS Antenna Forecast 2012-2017, (%YoY Growth) .....	169
Exhibit 150: Africa BTS Antenna Forecast 2012-2017, (Units) .....	170
Exhibit 151: Africa BTS Panel Antenna Shipments by Size, 2012 (Units) .....	171
Exhibit 152: Africa BTS Panel Antenna Forecast by Size, 2012-2017 (Units) .....	172
Exhibit 153: Africa BTS Panel Antenna Shipments by Type, 2012 (Units) .....	173
Exhibit 154: Africa BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	174
Exhibit 155: Africa Multi-Band BTS Panel Antenna Shipments by Type, 2012 (Units) .....	175
Exhibit 156: Africa Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	176
Exhibit 157: Africa BTS Panel Antenna Shipments by Frequency, 2012 (Units) .....	177
Exhibit 158: Africa BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	178
Exhibit 159: Africa BTS Panel Antenna Shipments by Electrical Tilt, 2012 (Units) .....	179
Exhibit 160: Africa VET BTS Panel Antenna Forecast, 2012-2017 (Units) .....	180
Exhibit 161: Africa BTS Antenna RET Motor Shipment Forecast, 2012-2017 (Units) .....	181
Exhibit 162: Africa BTS Antenna Revenues by Type, 2012 (mUSD) .....	182
Exhibit 163: Africa BTS Antenna Revenue Forecast, 2012-2017 (mUSD) .....	183
Exhibit 164: Africa BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	183
Exhibit 165: The Middle East BTS Antenna Shipments by Type, 2012 (Units) .....	185
Exhibit 166: The Middle East BTS Antenna Forecast 2012-2017, (%YoY Growth) .....	186
Exhibit 167: The Middle East BTS Antenna Forecast 2012-2017, (Units) .....	187
Exhibit 168: The Middle East BTS Panel Antenna Shipments by Size, 2012 (Units) .....	188
Exhibit 169: The Middle East BTS Panel Antenna Forecast by Size, 2012-2017 (Units) .....	189
Exhibit 170: The Middle East BTS Panel Antenna Shipments by Type, 2012 (Units) .....	190
Exhibit 171: The Middle East BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	191
Exhibit 172: The Middle East Multi-Band BTS Panel Antenna Shipments by Type, 2012 (Units) .....	192
Exhibit 173: The Middle East Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	193
Exhibit 174: The Middle East BTS Panel Antenna Shipments by Frequency, 2012 (Units) .....	194
Exhibit 175: The Middle East BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	195
Exhibit 176: The Middle East BTS Panel Antenna Shipments by Electrical Tilt, 2012 (Units) .....	196
Exhibit 177: The Middle East VET BTS Panel Antenna Forecast, 2012-2017 (Units) .....	197
Exhibit 178: The Middle East BTS Antenna RET Motor Shipment Forecast, 2012-2017 (Units) .....	198
Exhibit 179: The Middle East BTS Antenna Revenues by Type, 2012 (mUSD) .....	199
Exhibit 180: The Middle East BTS Antenna Revenue Forecast, 2012-2017 (mUSD) .....	200
Exhibit 181: The Middle East BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	200
Exhibit 182: Asia Pacific BTS Antenna Shipments by Type, 2012 (Units) .....	202
Exhibit 183: Asia Pacific BTS Antenna Forecast 2012-2017, (%YoY Growth) .....	203
Exhibit 184: Asia Pacific BTS Antenna Forecast 2012-2017, (Units) .....	204
Exhibit 185: Asia Pacific BTS Panel Antenna Shipments by Size, 2012 (Units) .....	205
Exhibit 186: Asia Pacific BTS Panel Antenna Forecast by Size, 2012-2017 (Units) .....	206
Exhibit 187: Asia Pacific BTS Panel Antenna Shipments by Type, 2012 (Units) .....	207

Exhibit 188: Asia Pacific BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	208
Exhibit 189: Asia Pacific Multi-Band BTS Panel Antenna Shipments by Type, 2012 (Units) .....	209
Exhibit 190: Asia Pacific Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	210
Exhibit 191: Asia Pacific BTS Panel Antenna Shipments by Frequency, 2012 (Units) .....	211
Exhibit 192: Asia Pacific BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	212
Exhibit 193: Asia Pacific BTS Panel Antenna Shipments by Electrical Tilt, 2012 (Units) .....	213
Exhibit 194: Asia Pacific VET BTS Panel Antenna Forecast, 2012-2017 (Units) .....	214
Exhibit 195: Asia Pacific BTS Antenna RET Motor Shipment Forecast, 2012-2017 (Units) .....	215
Exhibit 196: Asia Pacific BTS Antenna Revenues by Type, 2012 (mUSD) .....	216
Exhibit 197: Asia Pacific BTS Antenna Revenue Forecast, 2012-2017 (mUSD) .....	217
Exhibit 198: Asia Pacific BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	217
Exhibit 199: China BTS Antenna Shipments by Type, 2012 (Units) .....	220
Exhibit 200: China BTS Antenna Forecast 2012-2017, (%YoY Growth) .....	221
Exhibit 201: China BTS Antenna Forecast 2012-2017, (Units) .....	222
Exhibit 202: China BTS Panel Antenna Shipments by Size, 2012 (Units) .....	223
Exhibit 203: China BTS Panel Antenna Forecast by Size, 2012-2017 (Units) .....	224
Exhibit 204: China BTS Panel Antenna Shipments by Type, 2012 (Units) .....	225
Exhibit 205: China BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	226
Exhibit 206: China Multi-Band BTS Panel Antenna Shipments by Type, 2012 (Units) .....	227
Exhibit 207: China Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	228
Exhibit 208: China BTS Panel Antenna Shipments by Frequency, 2012 (Units) .....	229
Exhibit 209: China BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	230
Exhibit 210: China BTS Panel Antenna Shipments by Electrical Tilt, 2012 (Units) .....	231
Exhibit 211: China VET BTS Panel Antenna Forecast, 2012-2017 (Units) .....	232
Exhibit 212: China BTS Antenna Revenues by Type, 2012 (mUSD) .....	233
Exhibit 213: China BTS Antenna Revenue Forecast, 2012-2017 (mUSD) .....	234
Exhibit 214: China BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	235
Exhibit 215: India BTS Antenna Shipments by Type, 2012 (Units) .....	238
Exhibit 216: India BTS Antenna Forecast 2012-2017, (%YoY Growth) .....	239
Exhibit 217: India BTS Antenna Forecast 2012-2017, (Units) .....	240
Exhibit 218: India BTS Panel Antenna Shipments by Size, 2012 (Units) .....	241
Exhibit 219: India BTS Panel Antenna Forecast by Size, 2012-2017 (Units) .....	242
Exhibit 220: India BTS Panel Antenna Shipments by Type, 2012 (Units) .....	243
Exhibit 221: India BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	244
Exhibit 222: India Multi-Band BTS Panel Antenna Shipments by Type, 2012 (Units) .....	245
Exhibit 223: India Multi-Band BTS Panel Antenna Forecast by Type, 2012-2017 (Units) .....	246
Exhibit 224: India BTS Panel Antenna Shipments by Frequency, 2012 (Units) .....	247
Exhibit 225: India BTS Panel Antenna Forecast by Frequency, 2012-2017 (Units) .....	248
Exhibit 226: India BTS Panel Antenna Shipments by Electrical Tilt, 2012 (Units) .....	249
Exhibit 227: India VET BTS Panel Antenna Forecast, 2012-2017 (Units) .....	250
Exhibit 228: India BTS Antenna Revenues by Type, 2012 (mUSD) .....	251
Exhibit 229: India BTS Antenna Revenue Forecast, 2012-2017 (mUSD) .....	252
Exhibit 230: India BTS Antenna Revenue Forecast by Type, 2012-2017 (mUSD) .....	253