

Address/Data Bus is shown for 16-bit peripherals

Address/Data Bus LSB: Regardless of Endianness

A0 is always the least significant bit for 8-bit peripherals, A1 is always the least significant bit for 16-bit peripherals, A2 is always the least significant bit for 32-bit peripherals,

D24 is always the least significant bit for 8-bit peripherals, D16 is always the least significant bit for 16-bit peripherals, D00 is always the least significant bit for 32-bit peripherals,

8 bit peripherals are aligned with D31-24. The four external memory cycles require both A1 and A0.

16 bit peripherals are aligned with D31-16. The two external memory cycles require the state of A1 and not A0

32 bit peripherals are aligned with D31-0. The single external memory cycle does not require the state of A1 or A0

R2, R1 (In = 0) Flash/SPI configuration If booting from Flash: 00 8 bit 01 32 bit 10 32 bit 11 16 bit

NS9210: If booting from SPI 00 Reserved 01 8-bit addressing 10 24-bit addressing 11 16-bit addressing

NS9210 R3 IN = SPI Boot

R4 IN = Little Endian

NS7520 (R29 OMITTED) Add a pull-up on the SDRAM clk enable input.

NS9210 = 18.432MHz NS9210 = 29.4912MHz

NS9210 = 330R

NS9210 = 1.8V

NS9210 = 1.5V

Test Modes Debug = Place R22(NS7520) or R9(NS9210); Omit R8 Boundary Scan = Place R8; Omit R9 and R22 Note: Limited operation on NS7520; See HRM.

Table of NS9210 pins: D0-D31, A0-A31, P1-P10, M10-M14, R1-R4, R5-R10, R11-R14, R15-R18, R19-R22, R23-R26, R27-R30, R31-R34, R35-R38, R39-R42, R43-R46, R47-R50, R51-R54, R55-R58, R59-R62, R63-R66, R67-R70, R71-R74, R75-R78, R79-R82, R83-R86, R87-R90, R91-R94, R95-R98, R99-R102, R103-R106, R107-R110, R111-R114, R115-R118, R119-R122, R123-R126, R127-R130, R131-R134, R135-R138, R139-R142, R143-R146, R147-R150, R151-R154, R155-R158, R159-R162, R163-R166, R167-R170, R171-R174, R175-R178, R179-R182, R183-R186, R187-R190, R191-R194, R195-R198, R199-R202, R203-R206, R207-R210, R211-R214, R215-R218, R219-R222, R223-R226, R227-R230, R231-R234, R235-R238, R239-R242, R243-R246, R247-R250, R251-R254, R255-R258, R259-R262, R263-R266, R267-R270, R271-R274, R275-R278, R279-R282, R283-R286, R287-R290, R291-R294, R295-R298, R299-R302, R303-R306, R307-R310, R311-R314, R315-R318, R319-R322, R323-R326, R327-R330, R331-R334, R335-R338, R339-R342, R343-R346, R347-R350, R351-R354, R355-R358, R359-R362, R363-R366, R367-R370, R371-R374, R375-R378, R379-R382, R383-R386, R387-R390, R391-R394, R395-R398, R399-R402, R403-R406, R407-R410, R411-R414, R415-R418, R419-R422, R423-R426, R427-R430, R431-R434, R435-R438, R439-R442, R443-R446, R447-R450, R451-R454, R455-R458, R459-R462, R463-R466, R467-R470, R471-R474, R475-R478, R479-R482, R483-R486, R487-R490, R491-R494, R495-R498, R499-R502, R503-R506, R507-R510, R511-R514, R515-R518, R519-R522, R523-R526, R527-R530, R531-R534, R535-R538, R539-R542, R543-R546, R547-R550, R551-R554, R555-R558, R559-R562, R563-R566, R567-R570, R571-R574, R575-R578, R579-R582, R583-R586, R587-R590, R591-R594, R595-R598, R599-R602, R603-R606, R607-R610, R611-R614, R615-R618, R619-R622, R623-R626, R627-R630, R631-R634, R635-R638, R639-R642, R643-R646, R647-R650, R651-R654, R655-R658, R659-R662, R663-R666, R667-R670, R671-R674, R675-R678, R679-R682, R683-R686, R687-R690, R691-R694, R695-R698, R699-R702, R703-R706, R707-R710, R711-R714, R715-R718, R719-R722, R723-R726, R727-R730, R731-R734, R735-R738, R739-R742, R743-R746, R747-R750, R751-R754, R755-R758, R759-R762, R763-R766, R767-R770, R771-R774, R775-R778, R779-R782, R783-R786, R787-R790, R791-R794, R795-R798, R799-R802, R803-R806, R807-R810, R811-R814, R815-R818, R819-R822, R823-R826, R827-R830, R831-R834, R835-R838, R839-R842, R843-R846, R847-R850, R851-R854, R855-R858, R859-R862, R863-R866, R867-R870, R871-R874, R875-R878, R879-R882, R883-R886, R887-R890, R891-R894, R895-R898, R899-R902, R903-R906, R907-R910, R911-R914, R915-R918, R919-R922, R923-R926, R927-R930, R931-R934, R935-R938, R939-R942, R943-R946, R947-R950, R951-R954, R955-R958, R959-R962, R963-R966, R967-R970, R971-R974, R975-R978, R979-R982, R983-R986, R987-R990, R991-R994, R995-R998, R999-R1002, R1003-R1006, R1007-R1010, R1011-R1014, R1015-R1018, R1019-R1022, R1023-R1026, R1027-R1030, R1031-R1034, R1035-R1038, R1039-R1042, R1043-R1046, R1047-R1050, R1051-R1054, R1055-R1058, R1059-R1062, R1063-R1066, R1067-R1070, R1071-R1074, R1075-R1078, R1079-R1082, R1083-R1086, R1087-R1090, R1091-R1094, R1095-R1098, R1099-R1102, R1103-R1106, R1107-R1110, R1111-R1114, R1115-R1118, R1119-R1122, R1123-R1126, R1127-R1130, R1131-R1134, R1135-R1138, R1139-R1142, R1143-R1146, R1147-R1150, R1151-R1154, R1155-R1158, R1159-R1162, R1163-R1166, R1167-R1170, R1171-R1174, R1175-R1178, R1179-R1182, R1183-R1186, R1187-R1190, R1191-R1194, R1195-R1198, R1199-R1202, R1203-R1206, R1207-R1210, R1211-R1214, R1215-R1218, R1219-R1222, R1223-R1226, R1227-R1230, R1231-R1234, R1235-R1238, R1239-R1242, R1243-R1246, R1247-R1250, R1251-R1254, R1255-R1258, R1259-R1262, R1263-R1266, R1267-R1270, R1271-R1274, R1275-R1278, R1279-R1282, R1283-R1286, R1287-R1290, R1291-R1294, R1295-R1298, R1299-R1302, R1303-R1306, R1307-R1310, R1311-R1314, R1315-R1318, R1319-R1322, R1323-R1326, R1327-R1330, R1331-R1334, R1335-R1338, R1339-R1342, R1343-R1346, R1347-R1350, R1351-R1354, R1355-R1358, R1359-R1362, R1363-R1366, R1367-R1370, R1371-R1374, R1375-R1378, R1379-R1382, 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