

**DTMROC - S**    FBGA substrate database  
 University of Pennsylvania for the ATLAS TRT  
 detector at    C E R N  
 Mitch Newcomer  
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 215 - 898 - 4456

WIDTH=            5200  
 HEIGHT=           5000  
 NAME=DTMROC-S  
 PADSIZE=          100 X 100  
**[PADS]**

**[NETLIST]**            Die  
 ;NETNAME            PAD# BALL#  
 Gnd                    1    C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8  
 Vdd                    2    C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6  
 Gnd                    3    C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8  
 TR14N                 4    J4  
 TR14P                 5    K4  
 TR15N                 6    J5  
 TR15P                 7    K5  
 Vdd                    8    C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6  
 Vdd                    9    C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6  
 Gnd                    10   C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8  
 Gnd                    11   C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8  
 tp\_bias                12   J6  
 Gnd                    13   C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8  
 tp\_even                14   K6  
 Gnd                    15   C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8  
 tp\_odd                 16   J7  
 Vdd                    17   C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6  
 th\_D1                 18   K7  
 th\_TR1                19   J8  
 th\_D0                 20   K8  
 th\_TR0                21   J9  
 ConfigSelect         22   K9

ShaperSelect	23 G9
ASDBLRpwrSense	24 H9
ASDBLRpwrJmp	25 K10
Gnd	26 C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8
SpareInpSense	27 J10
SpareInpJump	28 H10
Gnd	29 C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8
Vdd	30 C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6
Gnd	31 C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8
Gnd	32 C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8
Vdd	33 C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6
vdd	34 C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6
enable_decoup2	35 G10
cmd_in_neg	36 F9
cmd_in_pos	37 F10
Gnd	38 C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8
bc_neg	39 E9
bc_pos	40 E10
Vdd	41 C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6
hard_res_B_neg	42 D9
hard_res_B_pos	43 D10
Gnd	44 C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8
Vdd	45 C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6
Vdd	46 C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6
Vdd	47 C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6
cmd_out_neg	48 C10
cmd_out_pos	49 C9
Gnd	50 C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8
data_out_neg	51 B10
data_out_pos	52 B9
enable_decoup1	53 C6
Vdd	54 C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6
Gnd	55 C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8
TRST	56 A10
TCK	57 A9
TDI	58 B8
TMS	59 A8
TD0	60 B7
Vdd	61 C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6
Gnd	62 C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8
address0	63 A7

address1	64 B6
address2	65 A6
address3	66 C5
address4	67 E5
address5	68 E4
Gnd	69 C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8
Vdd	70 C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6
Vdd	71 C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6
TR00N	72 A5
TR00P	73 B5
TR01N	74 A4
TR01P	75 B4
Gnd	76 C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8
Vdd	77 C7,D3,D4,D6,D8,E6,E7,F3,F4,F6,F7,G3,G4,G6
Gnd	78 C3,C4,C8,D5,D7,E3,E8,F5,F8,G5,G7,G8,H3,H4,H5,H6,H7,H8
TR02N	79 A3
TR02P	80 B3
TR03N	81 A2
TR03P	82 A1
TR04N	83 B2
TR04P	84 B1
TR05N	85 C2
TR05P	86 C1
TR06N	87 D2
TR06P	88 D1
TR07N	89 E2
TR07P	90 E1
TR08N	91 F2
TR08P	92 F1
TR09N	93 G2
TR09P	94 G1
TR10N	95 H2
TR10P	96 H1
TR11N	97 J2
TR11P	98 J1
TR12N	99 K2
TR12P	100 K1
TR13N	101 J3
TR13P	102 K3

