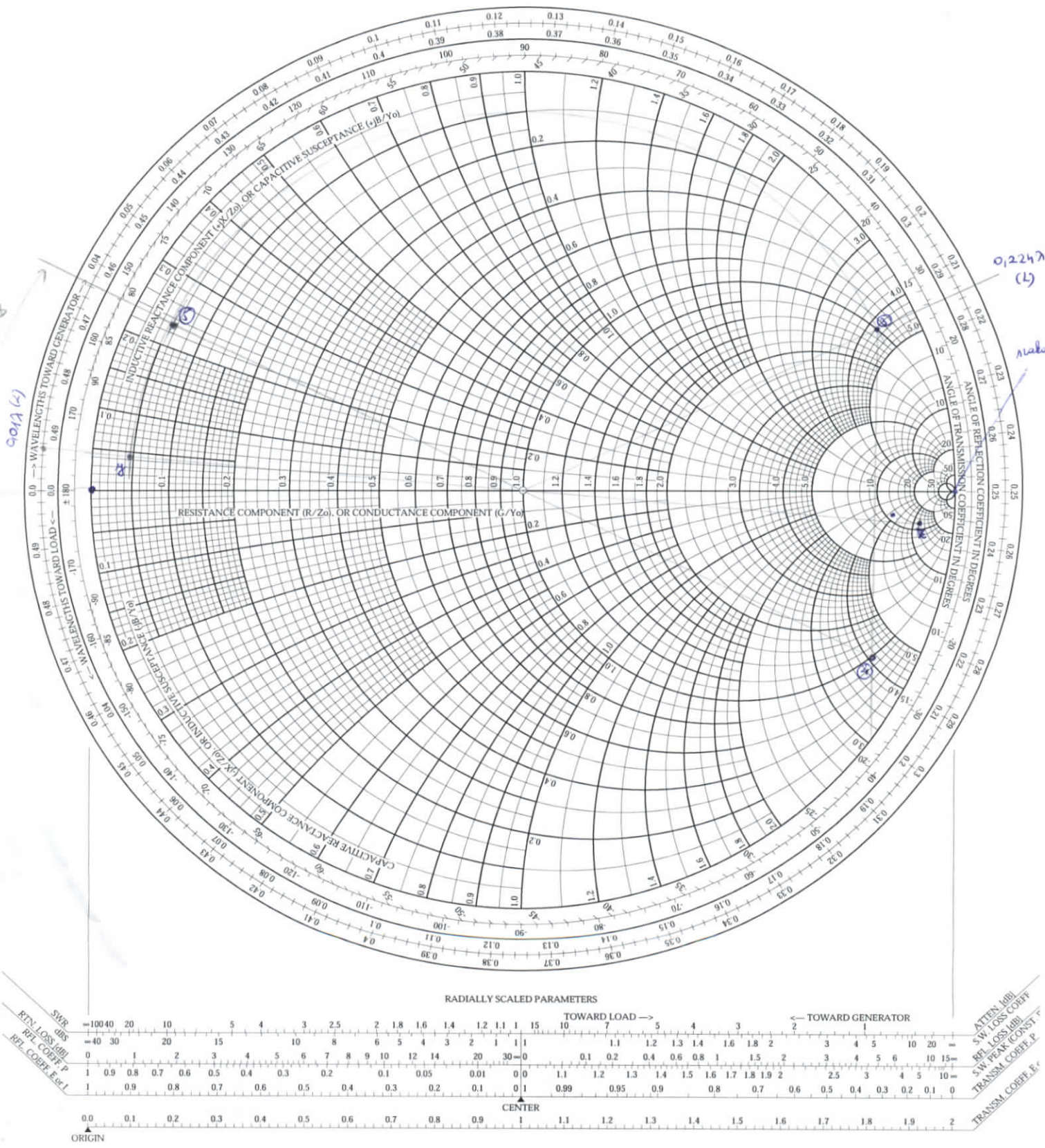
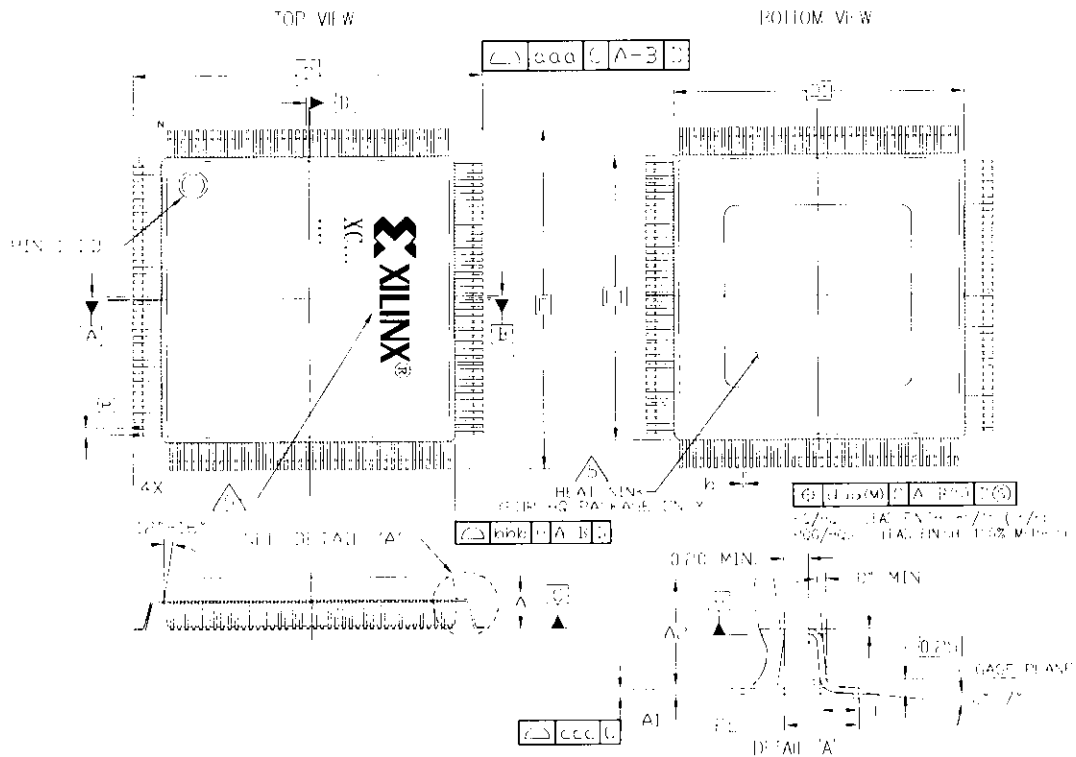


The Complete Smith Chart

Black Magic Design





DIMENSIONS	PQ208/PQ240			PQ208/PQ240			PQ208/PQ240			PQ208/PQ240		
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX
A	0.65	0.70	0.75	0.75	0.80	0.85	0.75	0.80	0.85	0.75	0.80	0.85
A ₁	1.95	2.00	2.10	3.20	3.40	3.60	3.20	3.40	3.60	3.20	3.40	3.60
B	0.20 BSC			0.20 BSC			0.20 BSC			0.20 BSC		
B ₁	1.60 REF			1.60 REF			1.60 REF			1.60 REF		
E	0.73	0.88	1.03	0.73	0.88	1.03	0.75	0.60	0.75	0.50	0.65	0.75
e	0.60 BSC			0.60 BSC			0.60 BSC			0.60 BSC		
F	0.30	0.40	0.50	0.30	0.40	0.50	0.27	0.30	0.33	0.27	0.30	0.33
f	0.13	0.12	0.11	0.13	0.12	0.11	0.13	0.12	0.11	0.13	0.12	0.11
g	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
h	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
i	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
J	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
N	44			160			208			240		
REF DES	MS-020, A3			MS-020, B3			MS-020, A-3			MS-020, A-3		

- NOTES:**
- ALL DIMENSIONS AND TOLERANCES CONFORM TO ANSI Y14.1M-1994.
 - DIMENSIONS B1 AND E DO NOT INCLUDE MOLD PROTRUSION. ALLOWABLE MOLD PROTRUSION SHALL NOT EXCEED 0.25mm PER SIDE.
 - PACKAGE TOP DIMENSIONS MAY BE SMALLER THAN THE BOTTOM DIMENSIONS BY 0.20mm.
 - THE SAME PACKAGE DIMENSIONS APPLY FOR THERMALLY ENHANCED PRODUCTS. HEAT SINK IS ADDED, THE PACKAGE CODE IS "HQ".
 - HEAT SINK DIMENSIONS: HQ160/HQ208=2mm SQ. REF: HQ240=24mm SQ. REF.
 - MARK ORIENTATION WITH RESPECT TO PIN 1 IS:
 - IF 2 OR MORE CIRCLES EXIST ON TOP OF THE PACKAGE, USE THE SMALLEST CIRCLE AS PIN 1 ID.

44, 160, 208, and 240 PIN HEAT SINK PQFP (PQ244/PQ244, HQ160/PQ2160, PQ208/PQ208, and HQ240/PQ240) and 160, 208, and 240 PIN HEAT SINK PQFP (HQ160/HQ160, HQ208/HQ208, and HQ240/HQ240)