

CHEMICAL MECHANICAL PLANARIZATION OR POLISHING PAD WITH SECTIONS
HAVING VARIED GROOVE PATTERNS

ABSTRACT

A CMP polishing pad improves overall material removal rate uniformity by combining multiple polishing pad sections (12) in a serially linked manner, where the polishing pad sections (12) are characterised by at least two different material removal rate profiles. The polishing pad (10) is designed by determining a wafer polishing profile for each of a group of polishing pads where each polishing pad has a unique groove configuration, determining a combination of polishing pad segments, each of the segments constructed with one of the unique groove configurations, that will combine to achieve an improved uniformity in the polishing profile, and manufacturing a polishing pad (10) having pad sections corresponding to the analytically determined pad sections (12).

Figure 1.