

The schematic diagram illustrates a 5V to 0.75V 15A Regulator circuit. The input power is provided by VCC_5V, which passes through a ferrite bead FB53 and a capacitor C1836 (0.1µF) before entering the VIN pin of the TPSM287A15BAHRDWR (U57). A network of capacitors (C1830, C1835, C1877, C1878) and resistors (R825) connects the input to the EN pin. The output of the regulator is connected to VCC_0V75 through a series of capacitors (C1844 to C1891) and resistors (R842, R843, R845, R846). The feedback network consists of resistors R832, R833, R834, R835, R836, and R837, along with a voltage divider (R838, R839) and a reference voltage (EN_0V75). The output voltage is monitored by a network of resistors (R840, R841, R842, R843, R844, R845, R846) and a voltage divider (R847, R848). The output current is limited by a resistor network (R849, R850, R851, R852, R853, R854, R855, R856, R857, R858, R859, R860, R861, R862, R863, R864, R865, R866, R867, R868, R869, R870, R871, R872, R873, R874, R875, R876, R877, R878, R879, R880, R881, R882, R883, R884, R885, R886, R887, R888, R889, R890, R891, R892, R893, R894, R895, R896, R897, R898, R899, R900, R901, R902, R903, R904, R905, R906, R907, R908, R909, R910, R911, R912, R913, R914, R915, R916, R917, R918, R919, R920, R921, R922, R923, R924, R925, R926, R927, R928, R929, R930, R931, R932, R933, R934, R935, R936, R937, R938, R939, R940, R941, R942, R943, R944, R945, R946, R947, R948, R949, R950, R951, R952, R953, R954, R955, R956, R957, R958, R959, R960, R961, R962, R963, R964, R965, R966, R967, R968, R969, R970, R971, R972, R973, R974, R975, R976, R977, R978, R979, R980, R981, R982, R983, R984, R985, R986, R987, R988, R989, R990, R991, R992, R993, R994, R995, R996, R997, R998, R999, R1000).