**DIGITAL PATTERN READING TYPE CONVERTER**

1. Plural denominationally related carriers (e.g., coarse/fine geared discs)
2. Plural types of codes on single carrier
3. According to nonlinear function
4. For X or Y coordinate determination (e.g., stylus-pad)
5. With directional discrimination
6. Antiambiguity feature
7. Real and complementary patterns
8. Having combined (e.g., denominational, combination code) coding pattern
9. Constant distance code
10. Incremental
11. Cathode ray
12. Optical
13. Having optical waveguide
14. Magnetic, inductive or capacitive
15. Brush and contacts or conductive pattern
16. Actuated by physical projection

**BODILY ACTUATED CODE GENERATOR**

17. For handicapped user
18. Including keyboard or keypad
19. Variable key legends
20. With error prevention means (e.g., debounce, antichatter)
21. With rollover feature (i.e., antidoublestrike)
22. With particular key scanning feature
23. With audible or tactile indicator
24. For pictorial or ideographic characters (e.g., design, Chinese or Japanese characters)
25. With variable pulse spacing or grouping
26. For numerical pulse type transmission
27. Photoelectric actuation
28. Magnetic or inductive actuation
29. Capacitive actuation
30. Pressure sensitive actuation
31. With rotary dial

**DIGITAL CODE TO DIGITAL CODE CONVERTERS**

32. Adaptive coding
33. To or from particular bit symbol
34. Bit represented by pulse width
35. Bit represented by discrete frequency
36. Substituting specified bit combinations for other prescribed bit combinations
37. To or from multi-level codes
38. Binary to or from ternary
39. To or from minimum d.c. level codes
40. To or from run length limited codes
41. To or from packed format
42. Data rate conversion
43. BCD (binary-coded-decimal) to or from decimal
44. To or from bit count codes
45. To or from number of pulses
46. To or from Huffman codes
47. To or from Morse code
48. To or from variable length codes
49. To or from NRZ (nonreturn-to-zero) codes
50. Return-to-zero to or from NRZ (nonreturn-to-zero) codes
51. To or from bi-phase level code (e.g., split phase code, Manchester code)
52. To or from bi-phase space or mark codes (e.g., double frequency code, FM code)
53. To or from delay modulation code (e.g., Miller code, three frequency code, MPM code)
54. To or from coded mark inversion
55. To or from double density code
56. To or from nonlinear codes
57. To or from differential codes
58. To or from delta modulation codes
59. Programmable structure
60. Tree structure
61. To or from fibonacci codes
62. To or from interleaved format
63. To or from mixed code formats
64. To or from mixed base codes
65. Binary to BCD (binary-coded decimal)
CLASS 341 CODED DATA GENERATION OR CONVERSION

85  BCD (binary-coded decimal) to binary
86  Generator runs until new code is generated
87  Unnecessary data suppression
88  Multiple conversions using same converter
89  Reversible converters
90  To or from alphanumeric code formats
91  To or from Baudot code
92  To or from Hollerith code
93  Complementers
94  With error detection or correction
95  Byte length changed
96  To or from constant distance codes
97  Gray to binary
98  Binary to Gray
99  To or from display device codes
100  Serial to parallel
101  Parallel to serial
102  To or from "N" out of "M" codes
103  "N" out of "M" to "X" out of "Y"
104  Binary to decimal
105  Decimal to binary
106  Coding by table look-up techniques
107  To or from code based on probability
108  REVERSIBLE ANALOG TO DIGITAL CONVERTERS
109  STOCHASTIC TECHNIQUES
110  ANALOG TO DIGITAL CONVERSION FOLLOWED BY DIGITAL TO ANALOG CONVERSION
111  PHASE OR TIME OF PHASE CHANGE
112  Synchron or resolver signal
113  Coarse and fine
114  Control system
115  Converter compensation
116  Analog resolver or synchro signal to digital signal
117  Digital signal to analog resolver or synchro signal
118  CONVERTER COMPENSATION
119  Temperature compensation
120  CONVERTER CALIBRATION OR TESTING
121  Trimming control circuits
122  SAMPLE AND HOLD
123  Having variable sampling rate
124  Sampled and held input signal with linear return to datum
125  Sampled and held input signal with nonlinear return to datum
126  ANALOG TO OR FROM DIGITAL CONVERSION
127  Bipolar
128  Dual slope analog to digital converter
129  Plural slope analog to digital converter
130  Increasing converter resolution (e.g., dithering)
131  Detecting analog signal peak
132  With particular solid state devices (e.g., Gunn effect device, Josephson device, drift transistor, using solid state active devices as impedances) with other at longer intervals
133  Integrated injection logic
134  Current mirror
135  Field effect transistor
136  Using optical device, (e.g., fiber optics, cathode ray tubes)
137  Nonlinear
138  Automatic control for increasing converter range (e.g., gain ranging, automatic gain control)
139  Linearization (e.g., nonlinear transfer characteristic compensates for nonlinear transducer)
140  Multiplex
141  Converter is part of control loop
142  Differential encoder and/or decoder (e.g., delta modulation, differential pulse code modulation)
143  Coarse and fine conversions
144  Serial conversion
145  Function generator
146  Tree structure
147  Using magnetic or cryogenic components
148  Using charge coupled devices or switched capacitances
Analog output represents a displacement or force. With intermediate conversion of digital value to time interval, using weighted impedances or ladder network. Analog to digital conversion involves coarse and fine conversions, intermediate conversion to frequency or number of pulses, analog input compared with static reference. Parallel type conversions include priority encoder acting sequentially. Serial conversions with change in signal may be recirculating. Single comparator and counter, single comparator and digital storage can be used. Intermediate conversion to time interval may be dual slope, plural slope. Input signal compared with linear or nonlinear ramp. Using magnetic or cryogenic components, charge transfer devices like charge coupled devices, charge transfer by switched capacitances are also considered. Numerical pulse type, multistage with gaseous or space discharge device feature, having counter or register are part of code generator or transmitter. Plural transmitters, with code display at transmitter, transmitter for remote control signal. Producing different pulse frequencies, with variable pulse spacing or grouping, plural pulse shapes, plural channels, carrier frequency variation, with variable pulse length, pulse presence or absence in equal length code, numerical pulse type, multistage, with gaseous or space discharge device feature, having counter or register are part of the code generator or transmitter.

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